

=> d his ful

(FILE 'HOME' ENTERED AT 09:48:36 ON 12 SEP 2005)

FILE 'REGISTRY' ENTERED AT 09:49:05 ON 12 SEP 2005

L1 STR  
L2 6 SEA SSS SAM L1  
D SCA  
D QUE  
L3 250 SEA SSS FUL L1

FILE 'HCAPLUS' ENTERED AT 10:11:44 ON 12 SEP 2005  
5 SEA ABB=ON PLU=ON L3

L4  
L5 FILE 'BEILSTEIN' ENTERED AT 10:14:21 ON 12 SEP 2005  
0 SEA SSS FUL L1

FILE 'MARPAT' ENTERED AT 10:16:07 ON 12 SEP 2005  
L6 0 SEA SSS SAM L1  
L7 9 SEA SSS FUL L1  
L8 8 SEA ABB=ON PLU=ON L7 NOT L4

FILE HOME

FILE REGISTRY  
Property values tagged with IC are from the ZIC/VINITI data file  
provided by InfoChem.

STRUCTURE FILE UPDATES: 9 SEP 2005 HIGHEST RN 862877-54-1  
DICTIONARY FILE UPDATES: 9 SEP 2005 HIGHEST RN 862877-54-1

New CAS Information Use Policies, enter HELP USAGETERMS for details.

TSCA INFORMATION NOW CURRENT THROUGH JULY 14, 2005

Please note that search-term pricing does apply when  
conducting SmartSELECT searches.

\*\*\*\*\*  
\*  
\* The CA roles and document type information have been removed from \*  
\* the IDE default display format and the ED field has been added, \*  
\* effective March 20, 2005. A new display format, IDERL, is now \*  
\* available and contains the CA role and document type information. \*  
\*  
\*\*\*\*\*

Structure search iteration limits have been increased. See HELP SLIMITS  
for details.

Experimental and calculated property data are now available. For more  
information enter HELP PROP at an arrow prompt in the file or refer  
to the file summary sheet on the web at:  
<http://www.cas.org/ONLINE/DBSS/registryss.html>

FILE HCAPLUS

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FILE COVERS 1907 - 12 Sep 2005 VOL 143 ISS 12  
FILE LAST UPDATED: 11 Sep 2005 (20050911/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.  
This file contains CAS Registry Numbers for easy and accurate substance identification.

FILE BEILSTEIN  
FILE RELOADED ON OCTOBER 20, 2002  
FILE LAST UPDATED ON JUNE 29, 2005

FILE COVERS 1771 TO 2005.  
FILE CONTAINS 9,271,550 SUBSTANCES

>>>PLEASE NOTE: Reaction data and substance data are stored in separate documents and can not be searched together in one query. Reaction data for BEILSTEIN compounds may be displayed immediately with the display codes PRE (preparations) and REA (reactions). A substance answer set retrieved after the search for a chemical name, a compounds with available reaction information by combining with PRE/FA, REA/FA or more generally with RX/FA. The BEILSTEIN Registry Number (BRN) is the link between a BEILSTEIN compound and belonging reactions. For more detailed reaction searches BRNs can be searched as reaction partner BRNs Reactant BRN (RX.RBRN) or Product BRN (RX.PBRN).<<<

>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

\*\*\*\*\*  
\* PLEASE NOTE THAT THERE ARE NO FORMATS FREE OF COST.  
\* SET NOTICE FEATURE: THE COST ESTIMATES CALCULATED FOR SET NOTICE  
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\* ESTIMATES MAY NOT REFLECT THE ACTUAL COSTS.  
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\*\*\*\*\*

NEW  
\* PATENT NUMBERS (PN) AND BABS ACCESSION NUMBERS (BABSAN) CAN NOW BE  
\* SEARCHED, SELECTED AND TRANSFERRED.  
\* NEW DISPLAY FORMATS ALTRF, ALTP AND BABSAN SHOW ALL REFERENCES,  
\* COMPOUND AT A GLANCE.

FILE MARPAT  
FILE CONTENT: 1988-PRESENT (VOL 143 ISS 10) (20050911/ED)  
MOST RECENT CITATIONS FOR PATENTS FROM FIVE MAJOR ISSUING AGENCIES  
(COVERAGE TO THESE DATES IS NOT COMPLETE):

US 6906245 14 JUN 2005

Searched by Paul Schultwitz 571-272-2527

DE 10354060 22 JUN 2005  
EP 1544195 15 JUN 2005  
JP 2005150306 09 JUN 2005  
WO 2005060749 07 JUL 2005

Expanded G-group definition display now available.

New CAS Information Use Policies, enter HELP USAGETERMS for details.

=> fil hcap

FILE 'HCAPLUS' ENTERED AT 10:21:04 ON 12 SEP 2005

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FILE COVERS 1907 - 12 Sep 2005 VOL 143 ISS 12

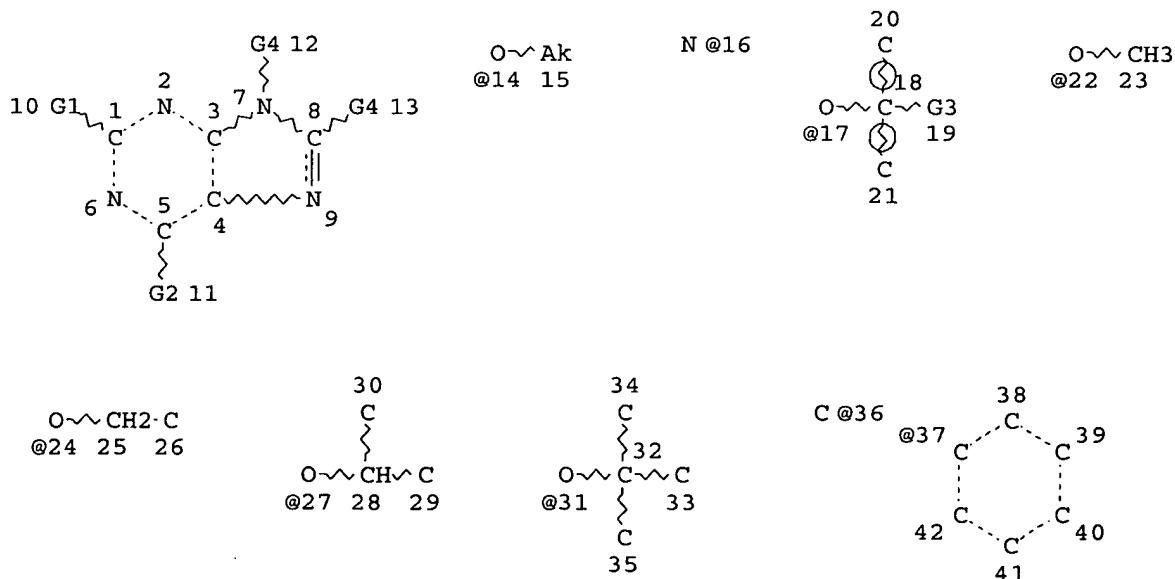
FILE LAST UPDATED: 11 Sep 2005 (20050911/ED)

New CAS Information Use Policies, enter HELP USAGETERMS for details.

This file contains CAS Registry Numbers for easy and accurate substance identification.

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L1 STR



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VAR G2=16/17/22/24/27/31  
VAR G3=H/36  
VAR G4=37/HY  
NODE ATTRIBUTES:  
NSPEC IS R AT 16  
NSPEC IS RC AT 26  
NSPEC IS RC AT 29  
NSPEC IS RC AT 30  
NSPEC IS RC AT 33  
NSPEC IS RC AT 34  
NSPEC IS RC AT 35  
NSPEC IS RC AT 36  
DEFAULT MLEVEL IS ATOM  
DEFAULT ELEVEL IS LIMITED

GRAPH ATTRIBUTES:  
RING(S) ARE ISOLATED OR EMBEDDED  
NUMBER OF NODES IS 42

STEREO ATTRIBUTES: NONE

L3 250 SEA FILE=REGISTRY SSS FUL L1  
L4 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L3

=> fil beilstein

FILE 'BEILSTEIN' ENTERED AT 10:21:12 ON 12 SEP 2005  
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licensed to Beilstein GmbH and MDL Information Systems GmbH

FILE RELOADED ON OCTOBER 20, 2002  
FILE LAST UPDATED ON JUNE 29, 2005

FILE COVERS 1771 TO 2005.

\*\*\* FILE CONTAINS 9,271,550 SUBSTANCES \*\*\*

>>>PLEASE NOTE: Reaction data and substance data are stored in  
separate documents and can not be searched together in one query.  
Reaction data for BEILSTEIN compounds may be displayed  
immediately with the display codes PRE (preparations) and REA  
(reactions). A substance answer set retrieved after the search  
for a chemical name, a compounds with available reaction  
information by combining with PRE/FA, REA/FA or more generally  
with RX/FA. The BEILSTEIN Registry Number (BRN) is the link  
between a BEILSTEIN compound and belonging reactions. For mo  
detailed reaction searches BRNs can be searched as reaction  
partner BRNs Reactant BRN (RX.RBRN) or Product BRN (RX.PBRN).<<<  
>>> FOR SEARCHING PREPARATIONS SEE HELP PRE <<<

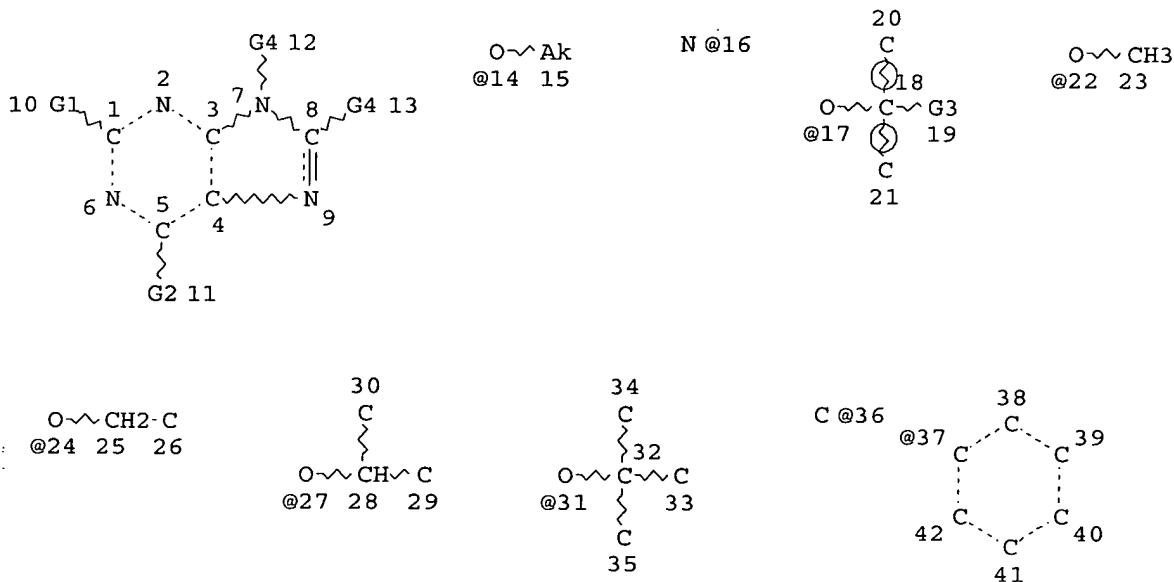
\*\*\*\*\*  
\* PLEASE NOTE THAT THERE ARE NO FORMATS FREE OF COST.  
\* SET NOTICE FEATURE: THE COST ESTIMATES CALCULATED FOR SET NOTICE  
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\* ESTIMATES MAY NOT REFLECT THE ACTUAL COSTS.  
\* FOR PRICE INFORMATION SEE HELP COST  
\*\*\*\*\*  
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\* PATENT NUMBERS (PN) AND BABS ACCESSION NUMBERS (BABSAN) CAN NOW BE

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\* NEW DISPLAY FORMATS ALLREF, ALLP AND BABSAN SHOW ALL REFERENCES,  
ALL PATENT REFERENCES, OR ALL BABS ACCESSION NUMBERS FOR A  
COMPOUND AT A GLANCE.

=> d que stat l5

L1 STR



VAR G1=H/AK/14

VAR G2=16/17/22/24/27/31

VAR G3=H/36

VAR G4=37/HY

NODE ATTRIBUTES:

NSPEC IS R AT 16

NSPEC IS RC AT 26

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NSPEC IS RC AT 30

NSPEC IS RC AT 33

NSPEC IS RC AT 34

NSPEC IS RC AT 35

NSPEC IS RC AT 36

DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 42

STEREO ATTRIBUTES: NONE

L5 0 SEA FILE=BEILSTEIN SSS FUL L1

100.0% PROCESSED 50025 ITERATIONS

0 ANSWERS

SEARCH TIME: 00.00.58

=> fil marpat

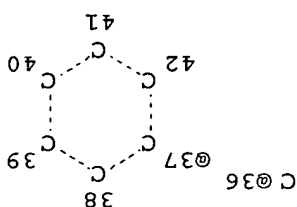
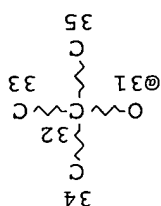
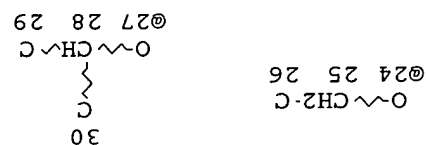
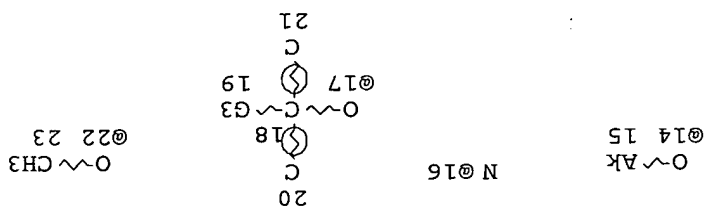
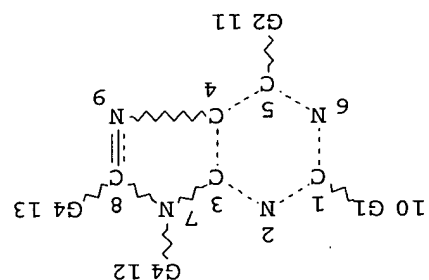
FILE 'MARPAT' ENTERED AT 10:21:23 ON 12 SEP 2005  
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 COPYRIGHT (C) 2005 American Chemical Society (ACS)  
 FILE CONTENT: 1988-PRESENT (VOL 143 ISS 10) (20050911/ED)  
 MOST RECENT CITATIONS FOR PATENTS FROM FIVE MAJOR ISSUING AGENCIES  
 (COVERAGE TO THESE DATES IS NOT COMPLETE):

US 6906245 14 JUN 2005  
 DE 10354060 22 JUN 2005  
 EP 1544195 15 JUN 2005  
 JP 2005150306 09 JUN 2005  
 WO 2005060749 07 JUL 2005

Expanded G-group definition display now available.

New CAS Information use Policies, enter HELP USAGETERMS for details.

=> d que stat 18  
 STR



VAR G1=H/AK/14  
 VAR G2=16/17/22/24/27/31  
 VAR G3=H/36  
 VAR G4=37/HY  
 NODE ATTRIBUTES:  
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 NSPEC IS RC AT 36  
 DEFAULT MLEVEL IS ATOM

DEFAULT ECLEVEL IS LIMITED

## GRAPH ATTRIBUTES:

RING(S) ARE ISOLATED OR EMBEDDED

NUMBER OF NODES IS 42

## STEREO ATTRIBUTES: NONE

L3 250 SEA FILE=REGISTRY SSS FUL L1

L4 5 SEA FILE=HCAPLUS ABB=ON PLU=ON L3

L7 9 SEA FILE=MARPAT SSS FUL L1

L8 8 SEA FILE=MARPAT ABB=ON PLU=ON L7 NOT L4

=> d l4 ibib abs hitstr 1-

YOU HAVE REQUESTED DATA FROM FILE 'HCAPLUS' - CONTINUE? (Y)/N:y

YOU HAVE REQUESTED DATA FROM 5 ANSWERS - CONTINUE? Y/(N):y

L4 ANSWER 1 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:549856 HCAPLUS

TITLE: Parallel solution-phase synthesis of a  
2,6,8,9-tetrasubstituted purine library via a sulfur  
intermediate

AUTHOR(S): Liu, Jinglin; Dang, Qun; Wei, Zhonglin; Zhang,  
Hengbin; Bai, Xu

CORPORATE SOURCE: Center for Combinatorial Chemistry and Drug Discovery,  
Jilin University, Changchun, 130012, Peop. Rep. China

SOURCE: Journal of Combinatorial Chemistry (2005), 7(4),  
627-636

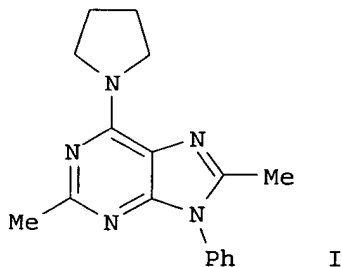
CODEN: JCCHFF; ISSN: 1520-4766

PUBLISHER: American Chemical Society

DOCUMENT TYPE: Journal

LANGUAGE: English

GI

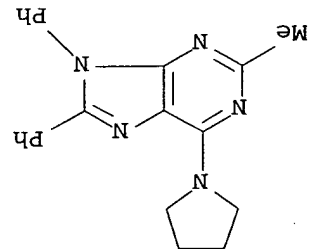


AB Purine analogs exhibiting a wide range of pharmacol. activities have been considered a privileged structure in medicinal chemical. In addition, the purine

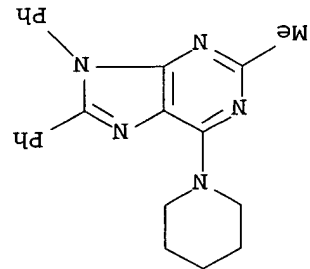
core consisting of four points of structural diversity is a well-sought scaffold in combinatorial chemical. Although most of the efforts have been focused on 2,6,9-, 6,8,9-, or 2,8,9-trisubstituted purines, syntheses of 2,6,8,9-tetrasubstituted purines are rare. A parallel solution phase approach for the synthesis of fully substituted purines, e.g., I, via a 6-sulfur-substituted pyrimidine as the key intermediate is presented.

This strategy combining construction and modification of the purine ring thus increased the structural diversity of the final products. Sequential substitution of chlorines in 4,6-dichloro-2-methyl-5-nitropyrimidine with primary amine and benzylmercaptan afforded the 4-amino-6-benzylthio-5-nitropyrimidine, which was readily converted to its diaminopyrimidine analog by reduction of the nitro group. The diaminopyrimidine intermediate was cyclized to construct the purine ring with a C-8 substituent. Eventual oxidation of sulfur to sulfone and subsequent displacement by a primary or secondary amine provided the desired 2',6',8',9'-tetrasubstituted purine analogs. This synthetic methodol. was validated with the synthesis of a 216-member purine library.

IT	862773-70-4P 862773-71-5P 862773-73-7P 862773-82-8P 862773-83-9P 862773-85-1P 862773-88-4P 862773-89-5P (Preparation)	RL: SPN (Synthetic preparation); PREP (Preparation)	(parallel solution-phase preparation of substituted purines via amination of dichloro(methyl)nitropyrimidine with amines followed by sulfanylation with benzylthiol, reduction, cyclization with aldehydes, oxidation, and substitution with amines)	862773-70-4 HCAPLUS	CN
				INDEX NAME NOT YET ASSIGNED	CN

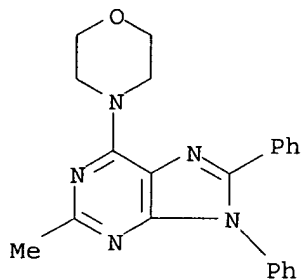


862773-71-5	HCAPLUS	INDEX NAME NOT YET ASSIGNED	CN
			RN

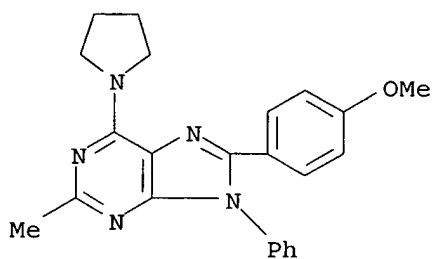


862773-73-7	HCAPLUS	INDEX NAME NOT YET ASSIGNED	CN
			RN

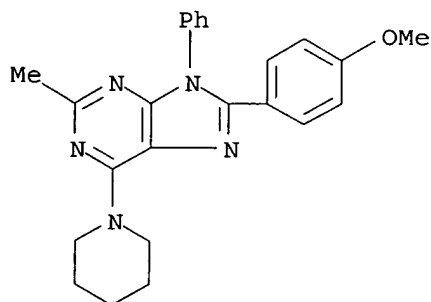




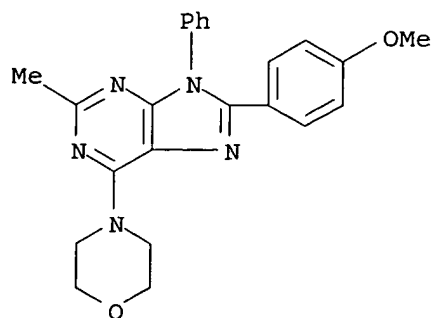
RN 862773-82-8 HCAPLUS  
CN INDEX NAME NOT YET ASSIGNED



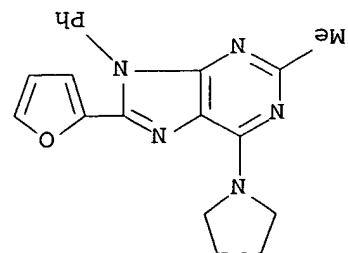
RN 862773-83-9 HCAPLUS  
CN INDEX NAME NOT YET ASSIGNED



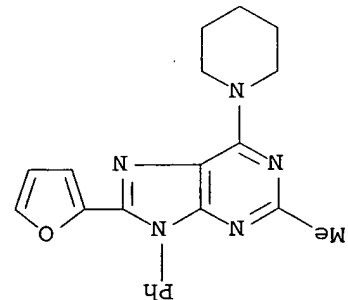
RN 862773-85-1 HCAPLUS  
CN INDEX NAME NOT YET ASSIGNED



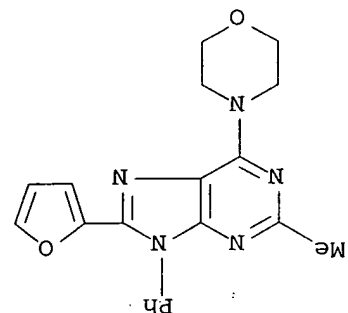
RN 862773-88-4 HCAPLUS  
CN INDEX NAME NOT YET ASSIGNED



RN 862773-89-5 HCAPLUS  
CN INDEX NAME NOT YET ASSIGNED



RN 862773-91-9 HCAPLUS  
CN INDEX NAME NOT YET ASSIGNED



REFERENCE COUNT: 27

THERE ARE 27 CITED REFERENCES AVAILABLE IN THE RE FORMAT  
RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 2 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:294668 HCAPLUS

DOCUMENT NUMBER: 143:7926

TITLE:

AUTHOR(S): Bookser, Brett C.; Matelich, Michael C.; Ollis,  
Conformation, and Enzyme Inhibition  
Purine Nucleoside Derivatives. Synthesis,  
Adenosine Kinase Inhibitors. 4, 6, 8-Disubstituted

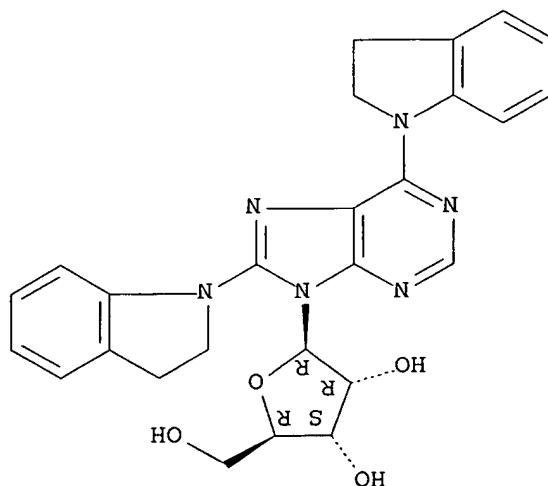
Kristin; Ugarkar, Bheemarao G.  
CORPORATE SOURCE: Metabasis Therapeutics, Inc., San Diego, CA, 92121, USA  
SOURCE: Journal of Medicinal Chemistry (2005), 48(9), 3389-3399  
CODEN: JMCMAR; ISSN: 0022-2623  
PUBLISHER: American Chemical Society  
DOCUMENT TYPE: Journal  
LANGUAGE: English

AB 6,8-Disubstituted purine nucleosides were synthesized and evaluated as adenosine kinase inhibitors (AKIs). A method was developed to selectively substitute arylamines for halogens at C6 and C8 which utilizes alkali salts of arylamino anions. Regioselectivity was found to be counterion dependent. Potassium and sodium salts add selectively to C6 of 6-chloro-8-iodo-9-(2,3,5-tris-O-tert-butyltrimethylsilyl- $\beta$ -D-ribofuranosyl)purine while lithium salts add to C6 and C8 positions. Differential 6,8-bis-arylamin-N,N'-di-yl-purine nucleosides such as 8-anilin-N-yl-6-indolin-N-yl-9-( $\beta$ -D-ribofuranosyl)purine (I) can be prepared by employing stepwise reactions of potassium and then lithium salts of different arylamino anions followed by fluoride ion-induced desilylation. Other C8-substituted compds. were prepared by way of either C8 lithiation chemical or palladium cross-coupling reactions. Several of these compds. were potent AKIs (e.g. I, AK IC<sub>50</sub> = 0.019  $\mu$ M) and are more potent than the previous best purine-based AKI 5'-deoxy-5'-amino-adenosine (AK IC<sub>50</sub> = 0.170  $\mu$ M). AK inhibitory potency was greatest for those compds. with 1H NMR evidence of a predominant anti glycosyl bond conformation, whereas most analogs adopt a syn conformation because of steric repulsions between the C8 substituent and the ribose group. The inhibitors are proposed to bind in the anti conformation with the hydrophobic C6 and C8 substituents contributing to AK affinity in a manner similar to the C4 and C5 aryl substituents of the potent diaryl-tubercidin nucleoside inhibitor series.

IT 852540-41-1P 852540-51-3P  
RL: PAC (Pharmacological activity); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)  
(preparation via regioselective substitution, cross-coupling reactions, steric effect, conformation, and structure activity of 6,8-disubstituted purine nucleosides as adenosine kinase inhibitors)

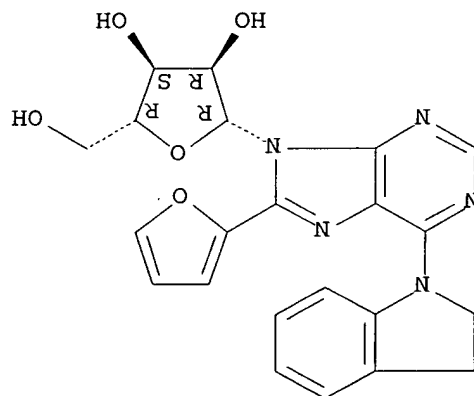
RN 852540-41-1 HCAPLUS  
CN 9H-Purine, 6,8-bis(2,3-dihydro-1H-indol-1-yl)-9- $\beta$ -D-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



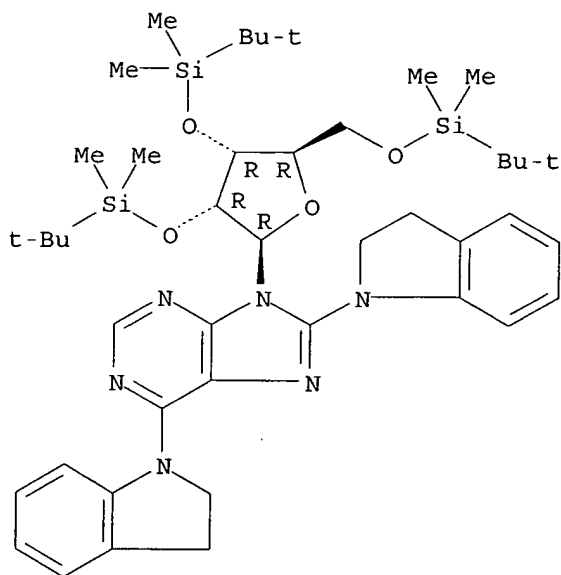
RN 852540-51-3 HCAPLUS  
 CN 9H-Purine, 6-(2,3-dihydro-1H-indol-1-yl)-8-(2-furanyl)-9-beta-D-ribofuranosyl- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



IT 852540-40-0P 852540-50-2P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation via regioselective substitution, cross-coupling reactions, steric effect, conformation, and structure activity of 6,8-disubstituted purine nucleosides as adenosine kinase inhibitors)  
 RN 852540-40-0 HCAPLUS  
 CN 9H-Purine, 6,8-bis(2,3-dihydro-1H-indol-1-yl)-9-[2,3,5-tris-O-[(1,1-dimethylethyl)dimethylsilyl]-beta-D-ribofuranosyl]- (9CI) (CA INDEX NAME)

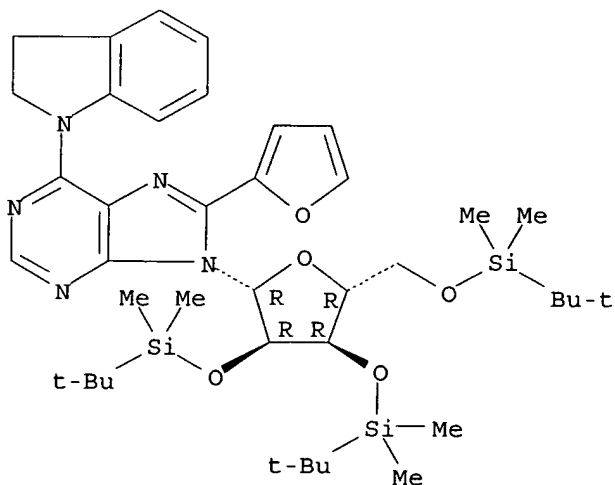
Absolute stereochemistry.



RN 852540-50-2 HCAPLUS

CN 9H-Purine, 6-(2,3-dihydro-1H-indol-1-yl)-8-(2-furanyl)-9-[2,3,5-tris-O-[(1,1-dimethylethyl)dimethylsilyl]-β-D-ribofuranosyl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



REFERENCE COUNT:

68

THERE ARE 68 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:200119 HCAPLUS

DOCUMENT NUMBER: 142:430225

TITLE: Preparation of a fully substituted purine library

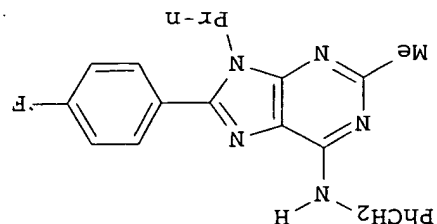
AUTHOR(S): Yang, Jianxin; Dang, Qun; Liu, Jinglin; Wei, Zhonglin; Wu, Jinchang; Bai, Xu

CORPORATE SOURCE: The Center for Combinatorial Chemistry and Drug

Discovery, Jilin University, Changchun, Jilin, 130012,  
Peop. Rep. China  
Journal of Combinatorial Chemistry (2005), 7(3),  
474-482  
CODEN: JCCHFF; ISSN: 1520-4766  
American Chemical Society  
Journal  
English

PUBLISHER:  
DOCUMENT TYPE:  
LANGUAGE:  
GI

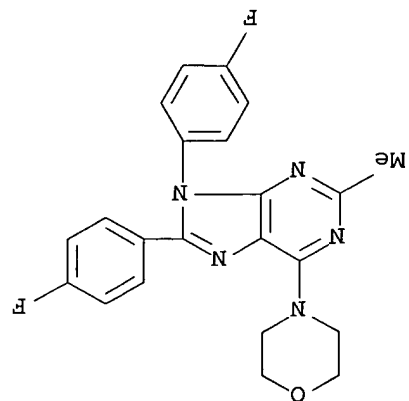
SOURCE:



AB A library of tetra-substituted purine analogs, e.g., I, was readily prepared via parallel synthesis. This strategy relied on a key cyclization of a 4,5-diaminopyrimidine with either a carboxylic acid or its derivative to construct the 2,8,9-trisubstituted 6-chloropurine core. Further elaborations of this core allowed the introduction of other diversity points. This methodol. was demonstrated through the preparation of a 135-membered library of tetra-substituted purines in good yields and high purity.

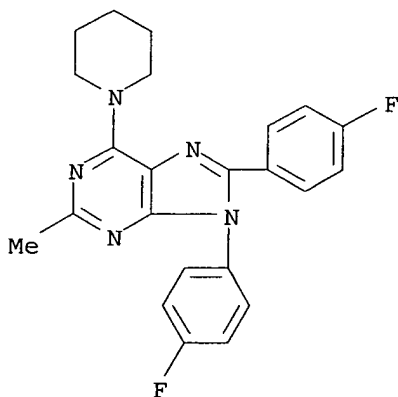
IT 850871-39-5P 850871-41-9P 850871-45-3P

RT: SPN (Synthetic preparation); PREP (Preparation)  
(preparation of purines via amination of amino(dichloro)pyrimidines with amines followed by heterocyclization with carbonyl derivs. and substitution with amines)  
850871-39-5 HCAPLUS  
9H-Purine, 8,9-bis(4-fluorophenyl)-2-methyl-6-(4-morpholinyl) - (9CI) (CA INDEX NAME)



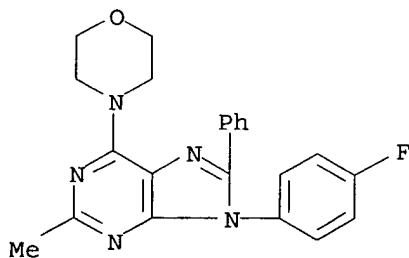
RN 850871-41-9 HCAPLUS

CN 9H-Purine, 8,9-bis(4-fluorophenyl)-2-methyl-6-(1-piperidinyl)- (9CI) (CA INDEX NAME)



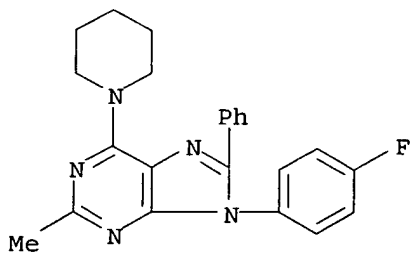
RN 850871-45-3 HCAPLUS

CN 9H-Purine, 9-(4-fluorophenyl)-2-methyl-6-(4-morpholinyl)-8-phenyl- (9CI) (CA INDEX NAME)



RN 850871-47-5 HCAPLUS

CN 9H-Purine, 9-(4-fluorophenyl)-2-methyl-8-phenyl-6-(1-piperidinyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 4 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:160837 HCAPLUS

DOCUMENT NUMBER: 142:233372

TITLE: Pharmaceutical composition using a combination of an

opioid receptor antagonist and a CB-1 receptor  
antagonist for the prevention and treatment of  
addiction in a mammal  
INVENTOR(S) :  
Coe, Jotham Wadsworth; Iredale, Philip A.; McHardy,  
Stanton Furst; McLean, Stafford  
Pfizer Inc, USA  
U.S. Pat. Appl. Publ., 25 pp.  
CODEN: USXXCO  
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 1  
PATENT INFORMATION:

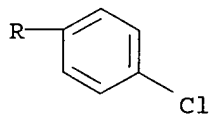
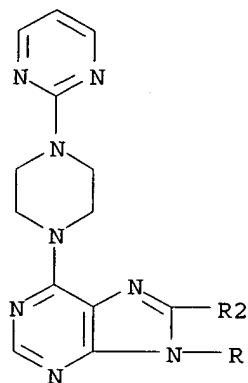
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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W:				
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PRIORITY APPLN. INFO.:				
US 2003-496803P P 20030821				

AB Pharmaceutical comps. are disclosed for the treatment of alc. or cocaine dependence or addiction, tobacco dependence or addiction, reduction of alc. withdrawal symptoms or aiding in the cessation or lessening of alc. use or substance abuse or other behavioral dependencies including gambling. The pharmaceutical comps. are comprised of a therapeutically effective combination of an opioid receptor antagonist and a CB-1 receptor antagonist and a pharmaceutically acceptable carrier. The method of using these comps. is also disclosed.

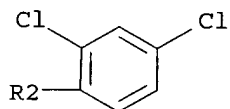
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RL: PAC (Pharmacological activity); THU (Therapeutic use); BIOL (Biological study); USES (Uses)  
(opioid receptor antagonist-CB-1 receptor antagonist combination for prevention and treatment of addiction)  
686344-19-4 HCAPLUS  
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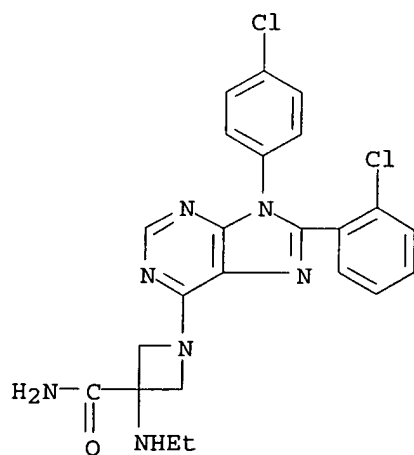
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PAGE 2-A

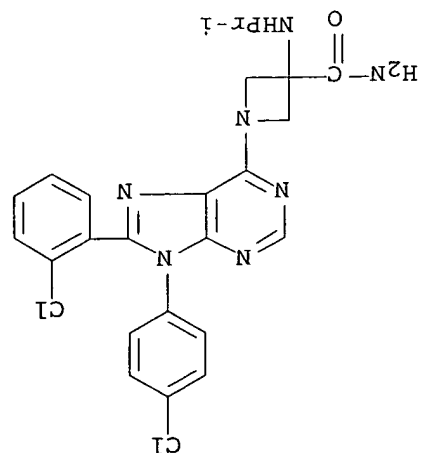


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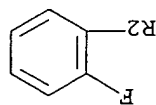
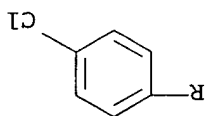
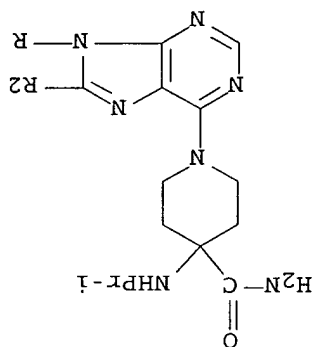
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6-yl]-3-[(1-methylethyl)amino] - (9CI) (CA INDEX NAME)



RN 686344-23-0 HCAPLUS  
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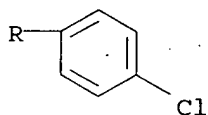
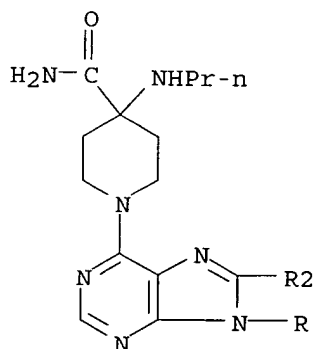
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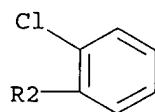
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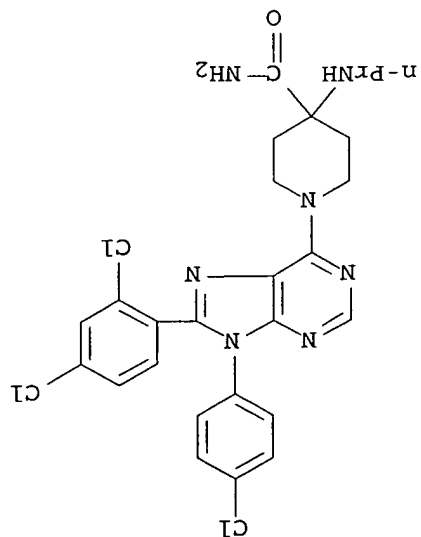
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PAGE 2-A

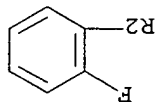
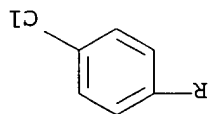
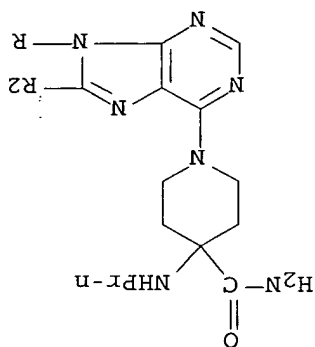


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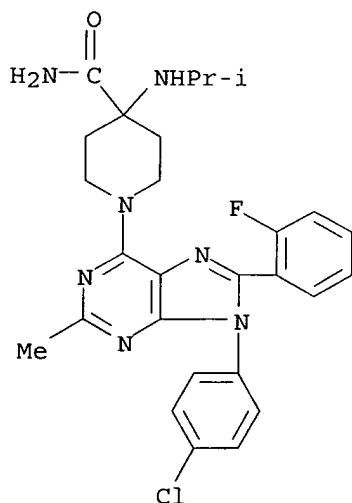
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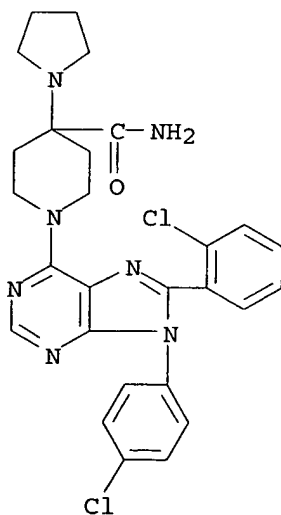
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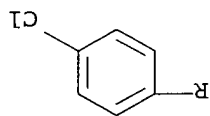
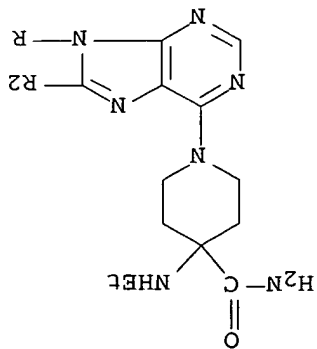
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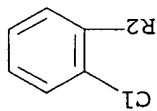
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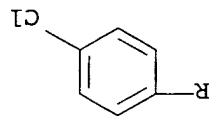
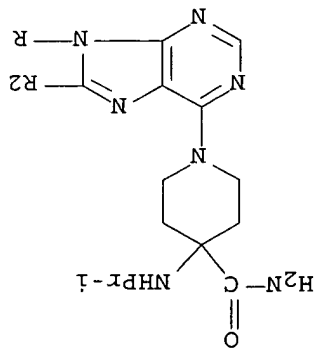


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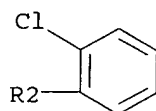


RN 686344-30-9 HCAPLUS  
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PAGE 1-A

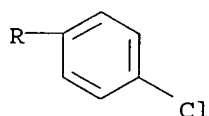
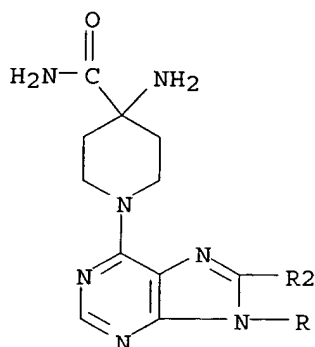


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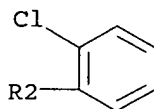


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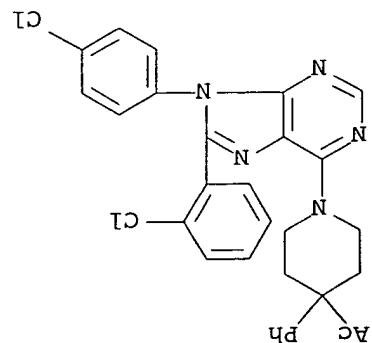
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PAGE 2-A

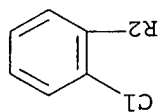
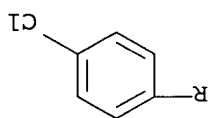
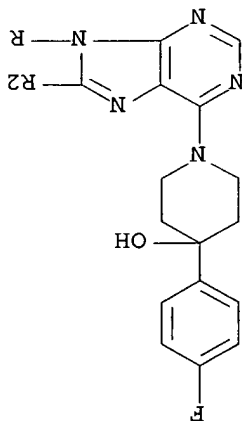


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CN Ethanone, 1-[1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-phenyl-4-piperidinyl]- (9CI) (CA INDEX NAME)



RN 686344-35-4 HCAPLUS  
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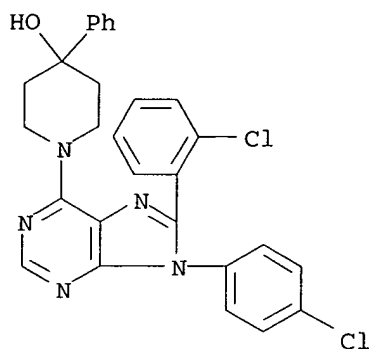
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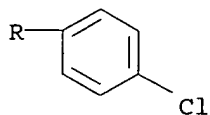
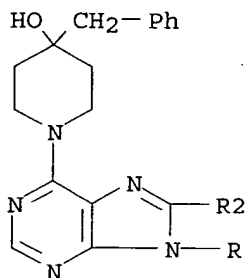




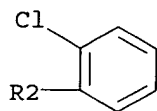
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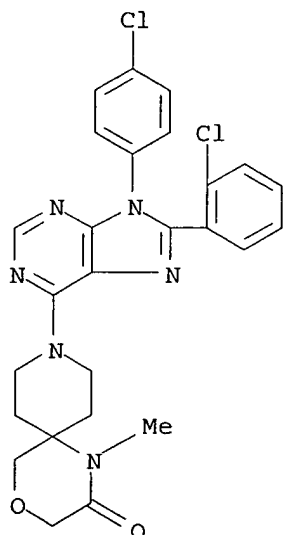
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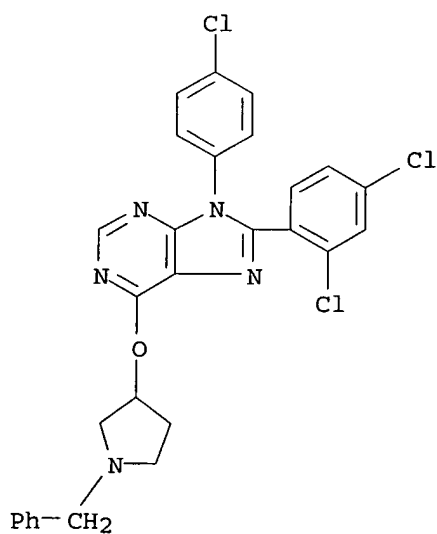
CN 1,3,8-Triazaspiro[4.5]decan-4-one, 8-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-1-(1-methylethyl)- (9CI) (CA INDEX NAME)





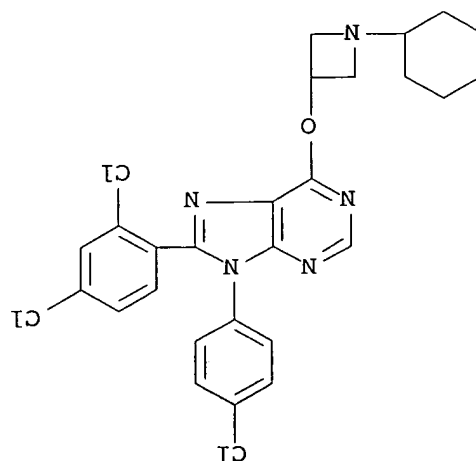
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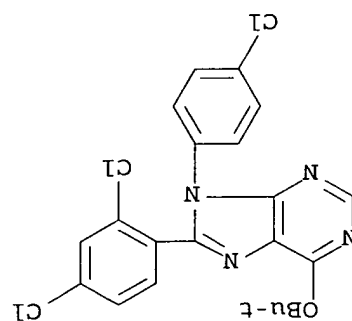


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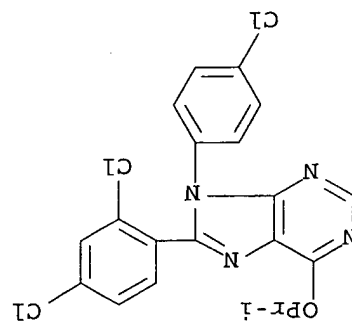
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RN 686344-43-4 HCAPLUS  
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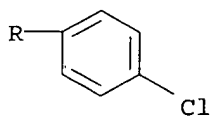
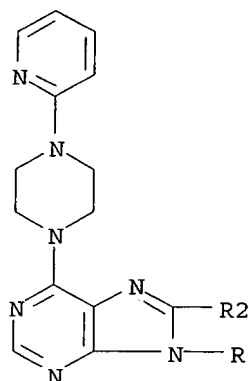


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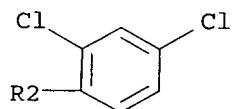


RN 686345-45-9 HCAPLUS  
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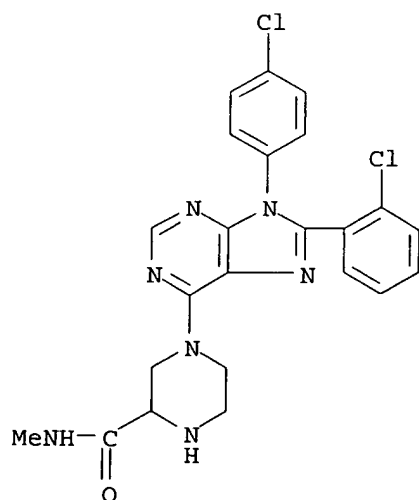
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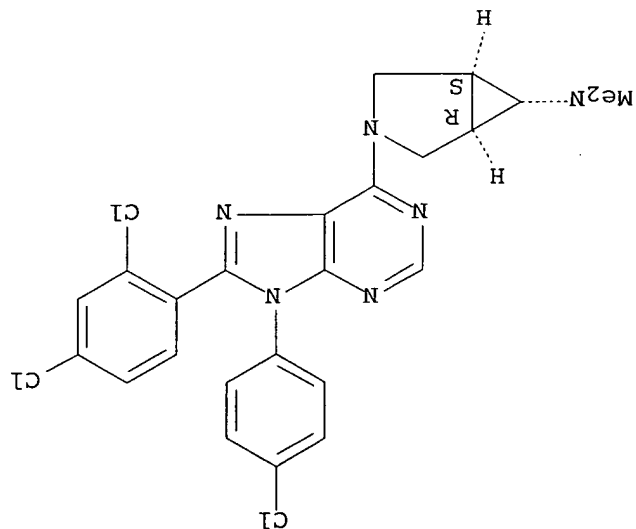
PAGE 2-A



RN 686347-23-9 HCAPLUS  
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RN 749207-87-2 HCAPLUS  
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 Relative stereochemistry.



L4 ANSWER 5 OF 5 HCAPLUS COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 2004:370934 HCAPLUS  
 DOCUMENT NUMBER: 140:391293

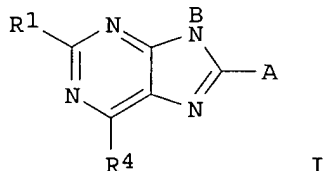
TITLE: Preparation of purines as cannabinoid receptor ligands

INVENTOR(S): Griffith, David Andrew  
 PATENT ASSIGNEE(S): Pfizer Products Inc., USA  
 SOURCE: PCT Int. Appl., 191 pp.

DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004037823	A1	20040506	WO 2003-IB4619	20031021
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BF, BJ, CF, CG, CI, CM, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
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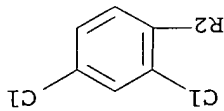
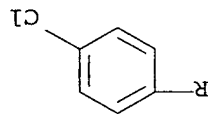
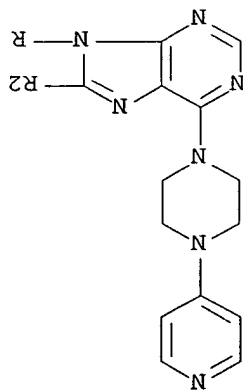
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 PRIORITY APPLN. INFO.: US 2002-421874P P 20021028  
 WO 2003-IB4619 W 20031021  
 OTHER SOURCE(S): MARPAT 140:391293  
 GI



AB Title compds. [I; A, B = (substituted) aryl, heteroaryl; R1 = H, alkyl, haloalkyl, alkoxy; R4 = specified (substituted) alkoxy, cycloalkoxy, N-heterocyclyl, etc.], were prepared Thus, 6-chloro-9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purine (preparation given) was added to a mixture prepared from Na and Me2CHOH followed by stirring at room temperature overnight to give 26% 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-isopropoxy-9H-purine. In a CB-1 receptor binding assay, I showed binding activities in the range of 0.17 nM to 1 µM.

IT 686344-18-3P 686344-19-4P 686344-20-7P  
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 RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)  
 (claimed compound; preparation of purines as cannabinoid receptor ligands (CB-1 receptor antagonists))

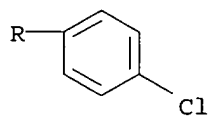
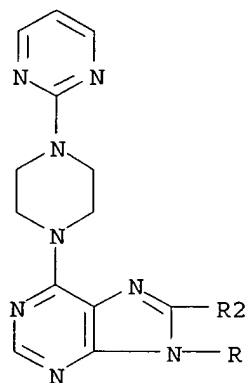
RN 686344-18-3 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-[4-(4-pyridinyl)-1-piperazinyl]- (9CI) (CA INDEX NAME)



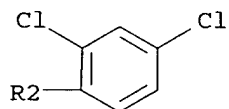
RN 686344-19-4 HCAPLUS  
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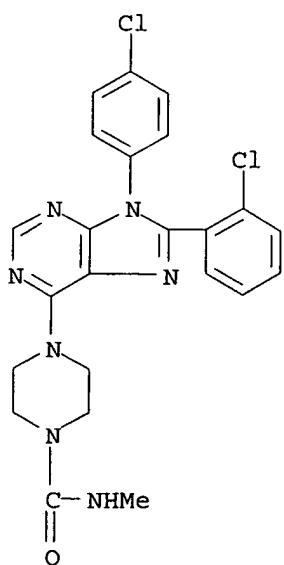
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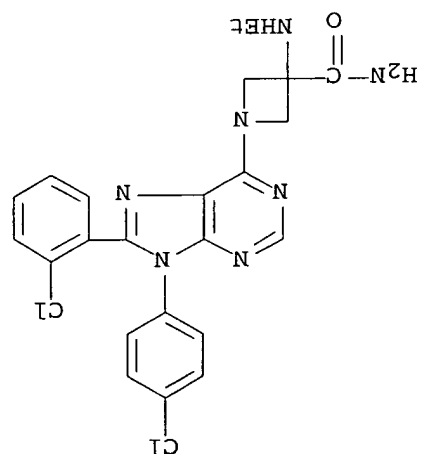
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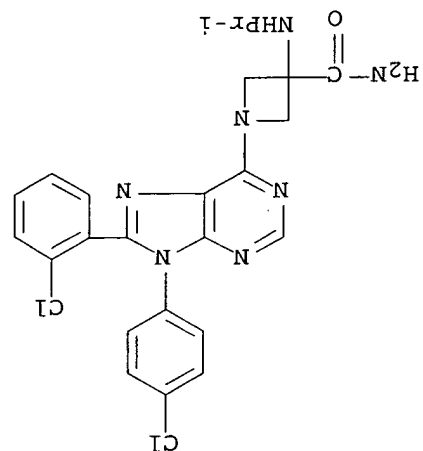
RN 686344-20-7 HCAPLUS  
 CN 1-Piperazinecarboxamide, 4-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-N-methyl- (9CI) (CA INDEX NAME)



RN 686344-21-8 HCAPLUS  
 CN 3-Azetidinecarboxamide, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-3-(ethylamino) - (9CI) (CA INDEX NAME)

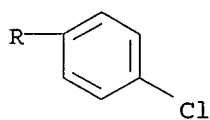
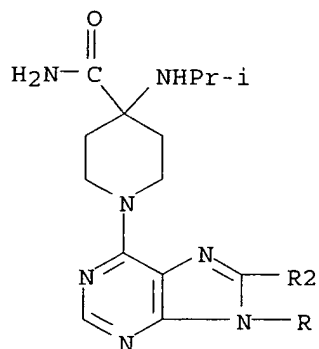


RN 686344-22-9 HCAPLUS  
 CN 3-Azetidinecarboxamide, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-3-[(1-methylethyl)amino] - (9CI) (CA INDEX NAME)

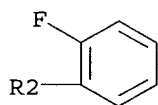


RN 686344-23-0 HCAPLUS  
 CN 4-Piperidinecarboxamide, 1-[9-(4-chlorophenyl)-8-(2-fluorophenyl)-9H-purin-6-yl]-4-[(1-methylethyl)amino] - (9CI) (CA INDEX NAME)

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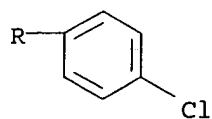
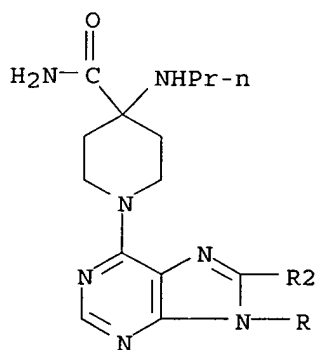


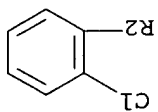
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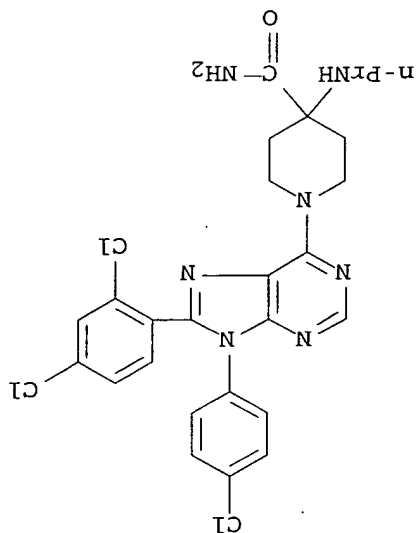
RN 686344-24-1 HCAPLUS  
CN 4-Piperidinecarboxamide, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-(propylamino)- (9CI) (CA INDEX NAME)

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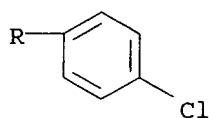
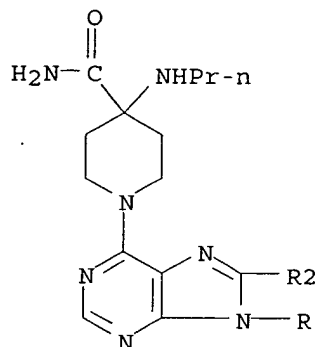


RN 686344-25-2 HCAPLUS  
 CN 4-Piperidinecarboxamide, 1-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-4-(propylamino) - (9CI) (CA INDEX NAME)

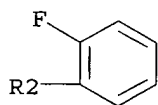


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 CN 4-Piperidinecarboxamide, 1-[9-(4-chlorophenyl)-8-(2-fluorophenyl)-9H-purin-6-yl]-4-(propylamino) - (9CI) (CA INDEX NAME)

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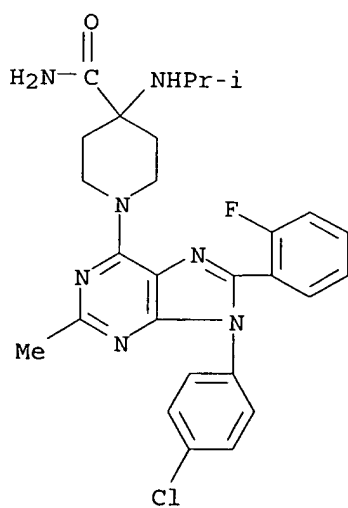


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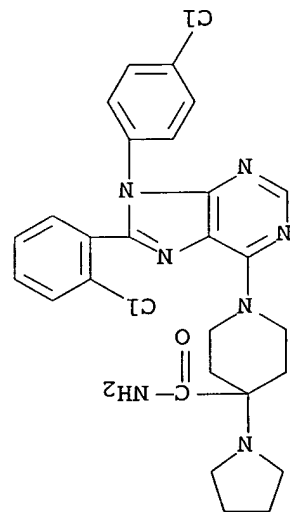
RN 686344-27-4 HCAPLUS

CN 4-Piperidinecarboxamide, 1-[9-(4-chlorophenyl)-8-(2-fluorophenyl)-2-methyl-9H-purin-6-yl]-4-[(1-methylethyl)amino]- (9CI) (CA INDEX NAME)



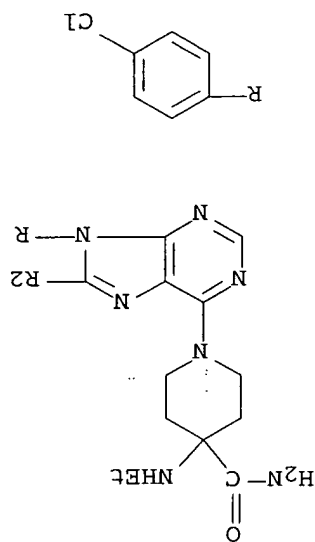
RN 686344-28-5 HCAPLUS

CN 4-piperidinecarboxamide, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-(1-pyrrolidinyl) - (9CI) (CA INDEX NAME)

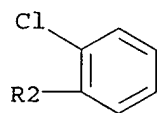


RN 686344-29-6 HCAPLUS  
CN 4-piperidinecarboxamide, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-(ethylamino) - (9CI) (CA INDEX NAME)

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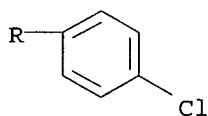
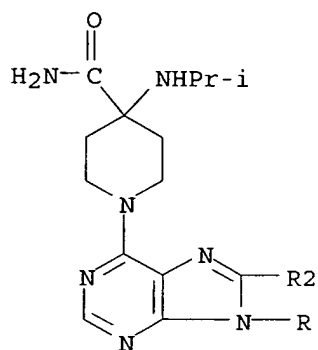


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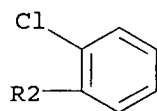


RN 686344-30-9 HCAPLUS  
CN 4-Piperidinecarboxamide, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-[(1-methylethyl)amino]- (9CI) (CA INDEX NAME)

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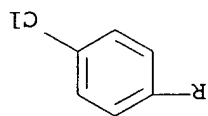
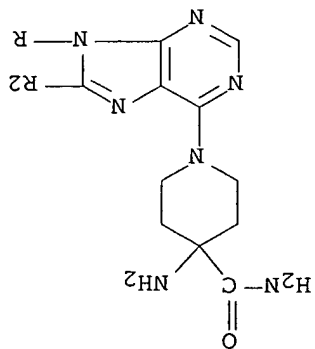


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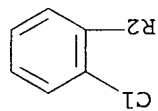


RN 686344-31-0 HCAPLUS  
CN 4-Piperidinecarboxamide, 4-amino-1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]- (9CI) (CA INDEX NAME)

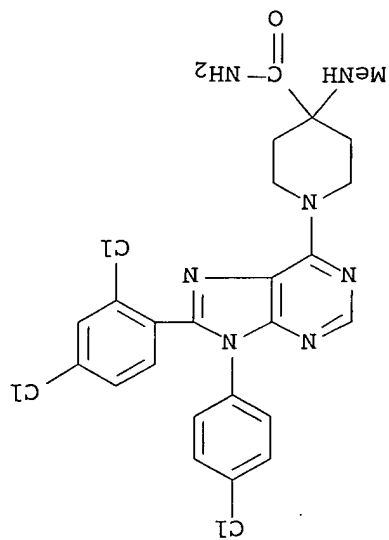
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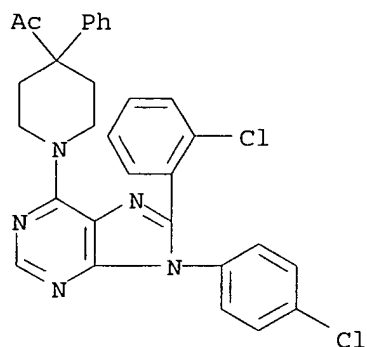
RN 686344-32-1 HCAPLUS  
CN 4-Piperidinecarboxamide, 1-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-4-(methylamino) - (9CI) (CA INDEX NAME)





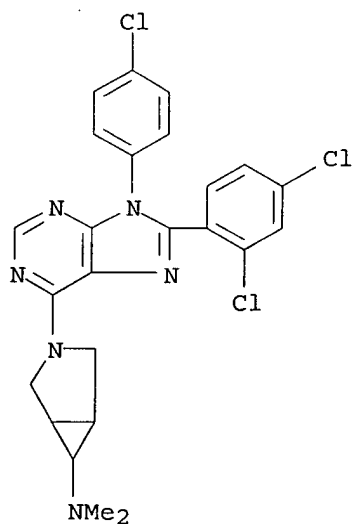
RN 686344-33-2 HCAPLUS

CN Ethanone, 1-[1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-phenyl-4-piperidinyl]- (9CI) (CA INDEX NAME)



RN 686344-34-3 HCAPLUS

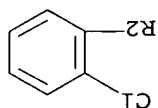
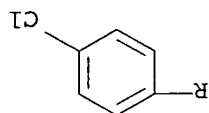
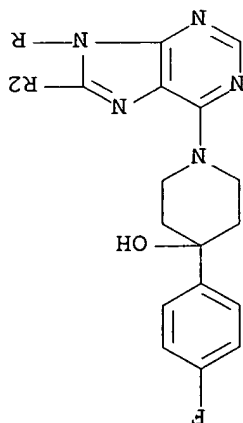
CN 3-Azabicyclo[3.1.0]hexan-6-amine, 3-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-N,N-dimethyl- (9CI) (CA INDEX NAME)



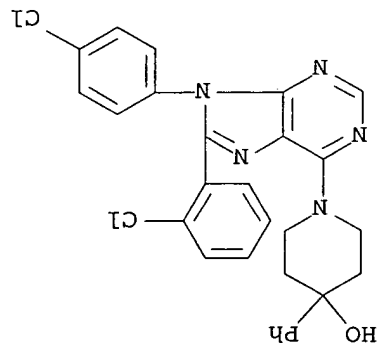
RN 686344-35-4 HCAPLUS

CN 4-Piperidinol, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-(4-fluorophenyl)- (9CI) (CA INDEX NAME)

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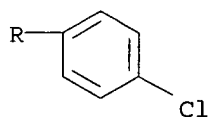
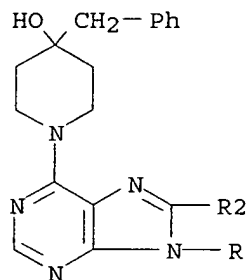


RN 686344-36-5 HCAPLUS  
 CN 4-piperidinol, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-phenyl- (9CI) (CA INDEX NAME)

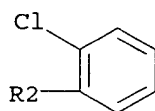


RN 686344-37-6 HCAPLUS  
 CN 4-piperidinol, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-(phenylmethyl)- (9CI) (CA INDEX NAME)

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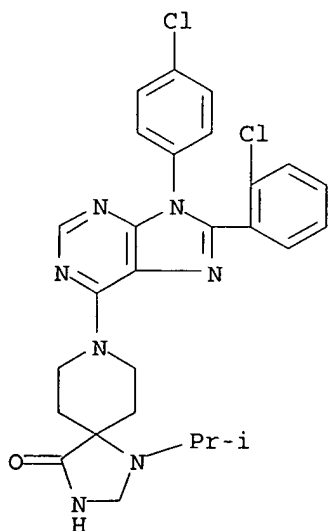


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RN 686344-38-7 HCAPLUS

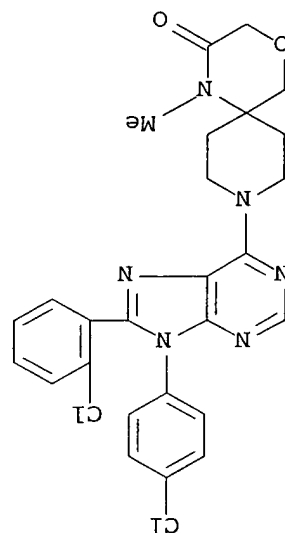
CN 1,3,8-Triazaspiro[4.5]decan-4-one, 8-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-1-(1-methylethyl)- (9CI) (CA INDEX NAME)



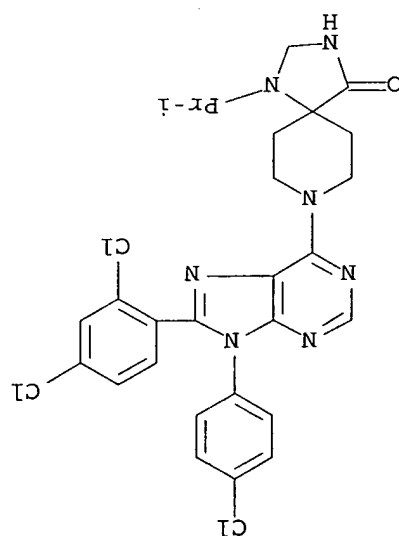
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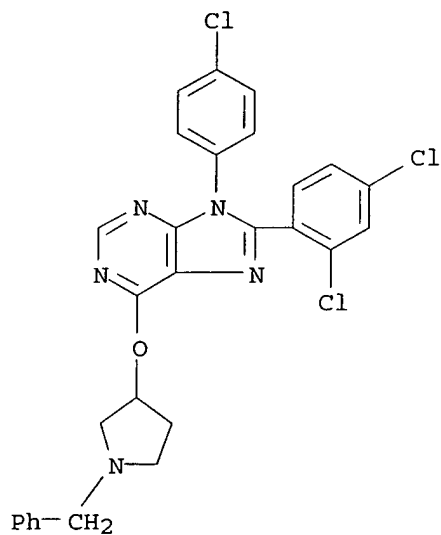
CN 1,3,8-Triazaspiro[4.5]decan-4-one, 8-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-1-(1-methylethyl)- (9CI) (CA INDEX NAME)

RN	686344-41-2 HCAPLUS
CN	9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-[1-(phenylmethyl)]-3-pyridinyl]oxy] - (9CI) (CA INDEX NAME)



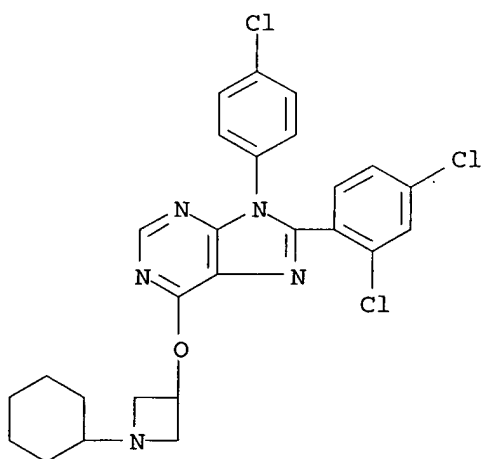
RN	686344-40-1	HCAPIUS
CN	4-Oxa-1,9-diazaspiro[5.5]undecan-2-one, 9-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-1-methyl- (9CI) (CA INDEX NAME)	





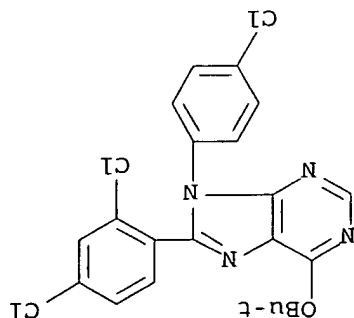
RN 686344-42-3 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-6-[(1-cyclohexyl-3-azetidinyloxy]-8-(2,4-dichlorophenyl)- (9CI) (CA INDEX NAME)



RN 686344-43-4 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-(1,1-dimethylethoxy)- (9CI) (CA INDEX NAME)



RN 686344-44-5 HCAPLUS  
CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-(1-methylethoxy)- (9CI) (CA INDEX NAME)

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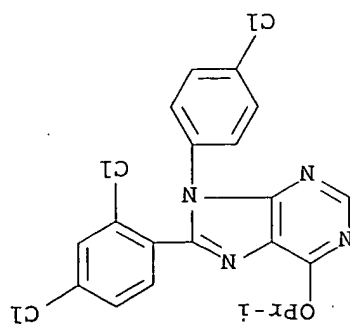
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RL: PAC (Pharmacological activity); SPN (Synthetic preparation); THU  
(Therapeutic use); BIOL (Biological study); PREP (Preparation); USES  
(Uses)

(preparation of purines as cannabinoid receptor ligands (CB-1 receptor  
antagonists))

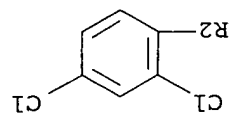
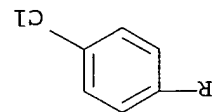
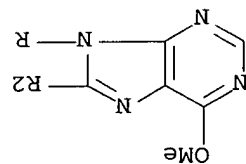
RN 686344-73-0 HCAPLUS

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monohydrochloride (9CI) (CA INDEX NAME)



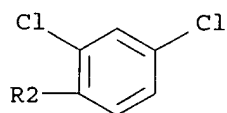
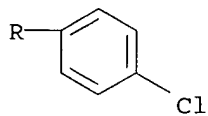
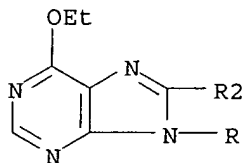
● HCl

RN 686344-74-1 HCAPLUS  
CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-methoxy- (9CI) (CA)  
INDEX NAME)

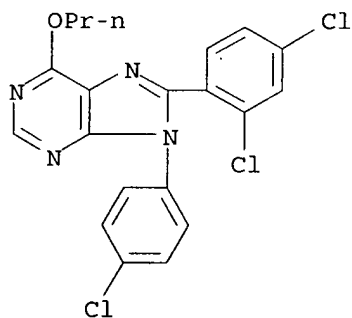


RN 686344-75-2 HCAPLUS  
CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-ethoxy- (9CI) (CA)  
INDEX NAME)

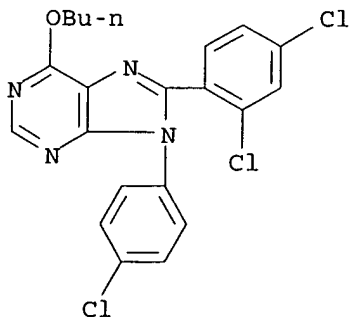




RN 686344-76-3 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-propoxy- (9CI) (CA INDEX NAME)

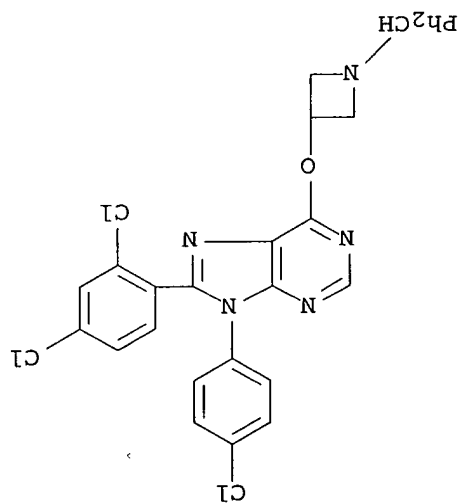


RN 686344-77-4 HCAPLUS  
 CN 9H-Purine, 6-butoxy-9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)- (9CI) (CA INDEX NAME)



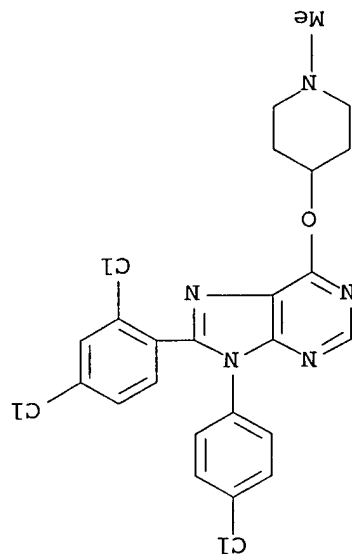
RN 686344-78-5 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-[[1-

(diphenylmethyl)-3-azetidinyl]oxy]-, monohydrochloride (9CI) (CA INDEX NAME)

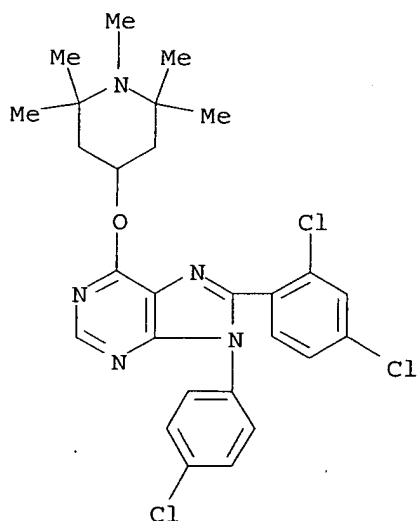


● HCl

RN 686344-79-6 HCAPLUS  
9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-[(1-methyl-4-piperidinyl)oxy]- (9CI) (CA INDEX NAME)

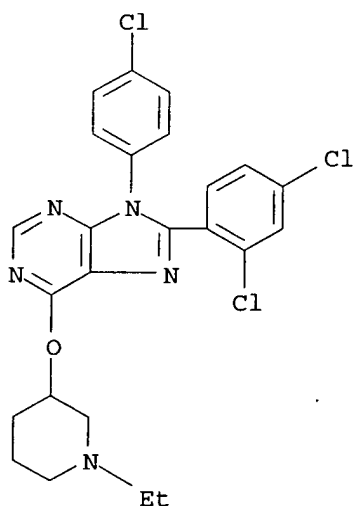


RN 686344-80-9 HCAPLUS  
9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-[(1,2,2,6,6-pentamethyl-4-piperidinyl)oxy]- (9CI) (CA INDEX NAME)



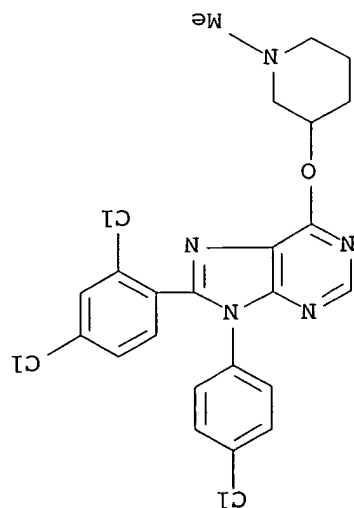
RN 686344-81-0 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-[(1-ethyl-3-piperidinyl)oxy]-(9CI) (CA INDEX NAME)

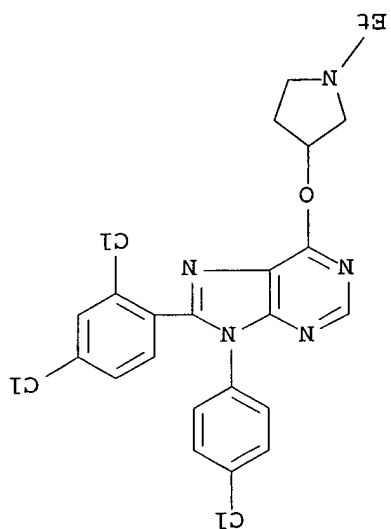


RN 686344-82-1 HCAPLUS

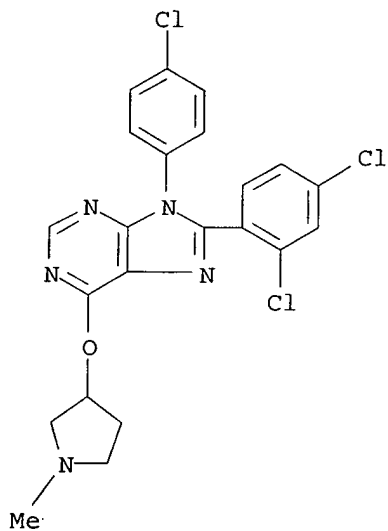
CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-[(1-methyl-3-piperidinyl)oxy]-(9CI) (CA INDEX NAME)



RN 686344-83-2 HCAPLUS  
CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-[(1-ethyl-3-pyrrolidinyl)oxy] - (9CI) (CA INDEX NAME)

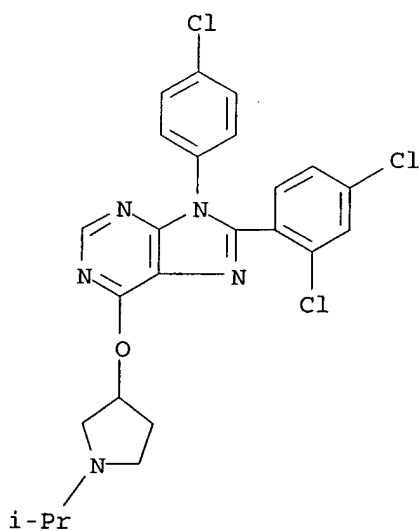


RN 686344-84-3 HCAPLUS  
CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-[(1-methyl-3-pyrrolidinyl)oxy] - (9CI) (CA INDEX NAME)



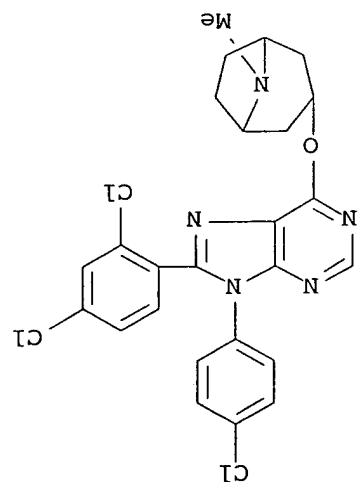
RN 686344-85-4 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-[[1-(1-methylethyl)-3-pyrrolidinyl]oxy]-(9CI) (CA INDEX NAME)

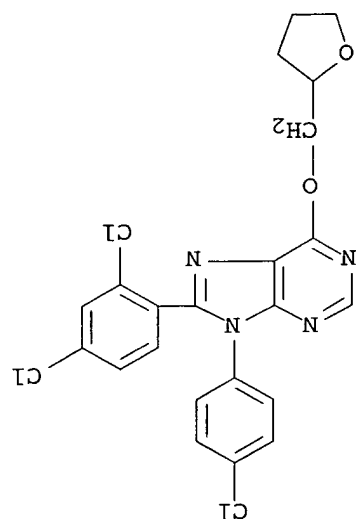


RN 686344-86-5 HCAPLUS

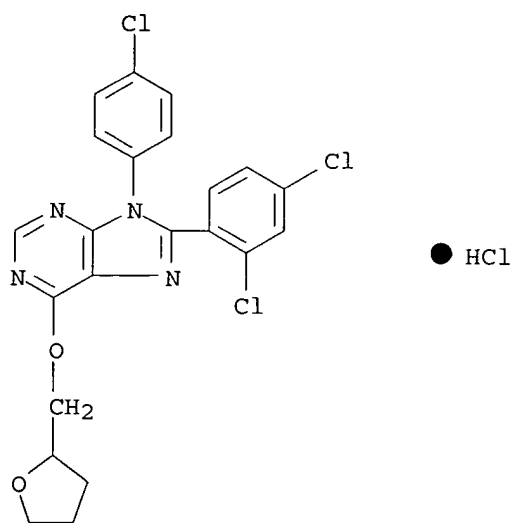
CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-[(8-methyl-8-azabicyclo[3.2.1]oct-3-yl)oxy]-(9CI) (CA INDEX NAME)



RN 686344-87-6 HCAPLUS  
CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-[(tetrahydro-2-furanyl)methoxy]- (9CI) (CA INDEX NAME)

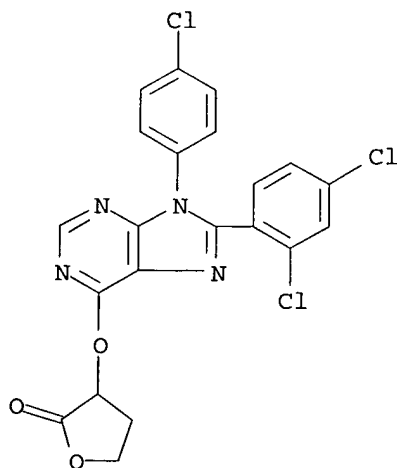


RN 686344-88-7 HCAPLUS  
CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-[(tetrahydro-2-furanyl)methoxy]- (9CI) (CA INDEX NAME)



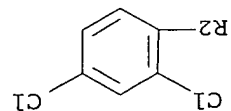
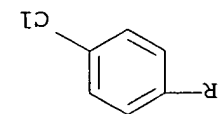
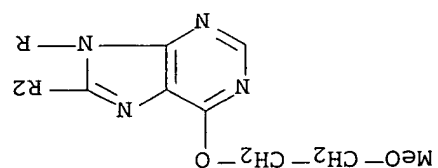
RN 686344-89-8 HCAPLUS

CN 2(3H)-Furanone, 3-[[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]oxy]dihydro- (9CI) (CA INDEX NAME)

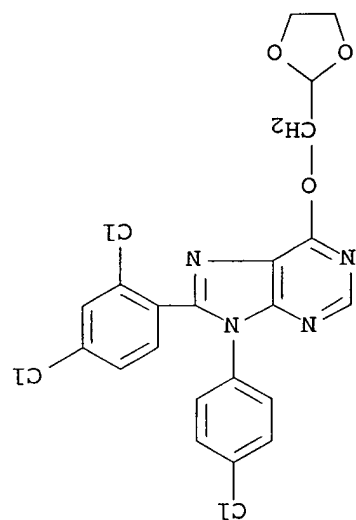


RN 686344-90-1 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-(2-methoxyethoxy)- (9CI) (CA INDEX NAME)

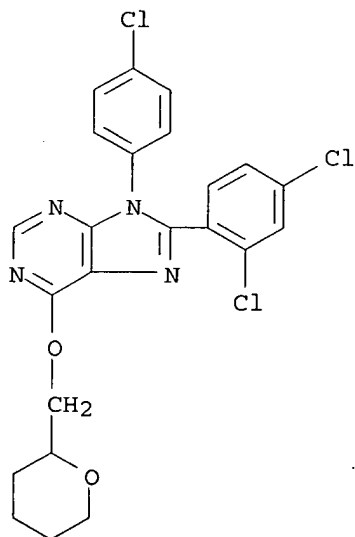


RN 686344-91-2 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-(1,3-dioxolan-2-yl)methoxy] - (9CI) (CA INDEX NAME)



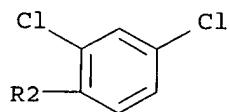
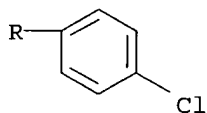
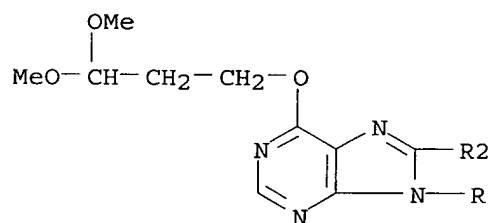
RN 686344-92-3 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-[(tetrahydro-2H-pyran-2-yl)methoxy] - (9CI) (CA INDEX NAME)





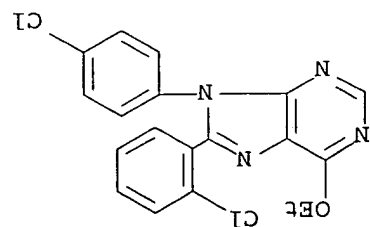
RN 686344-93-4 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-(3,3-dimethoxypropoxy)-(9CI) (CA INDEX NAME)

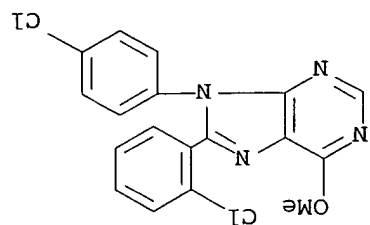


RN 686344-94-5 HCAPLUS

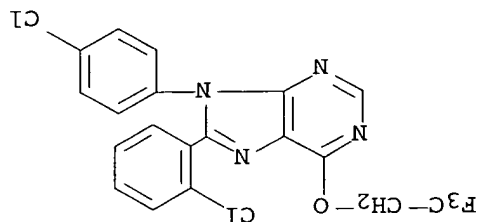
CN 9H-Purine, 8-(2-chlorophenyl)-9-(4-chlorophenyl)-6-ethoxy-(9CI) (CA INDEX NAME)



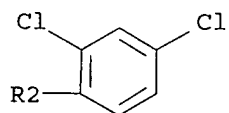
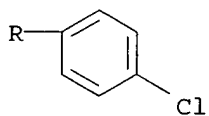
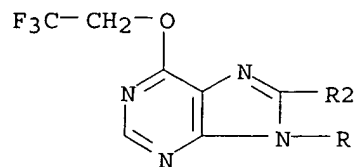
RN 686344-95-6 HCAPLUS  
 CN 9H-Purine, 8-(2-chlorophenyl)-9-(4-chlorophenyl)-6-methoxy- (9CI) (CA INDEX NAME)



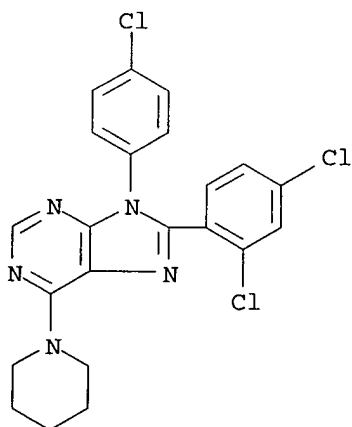
RN 686344-96-7 HCAPLUS  
 CN 9H-Purine, 8-(2-chlorophenyl)-9-(4-chlorophenyl)-6-(2,2,2-trifluoroethoxy)- (9CI) (CA INDEX NAME)



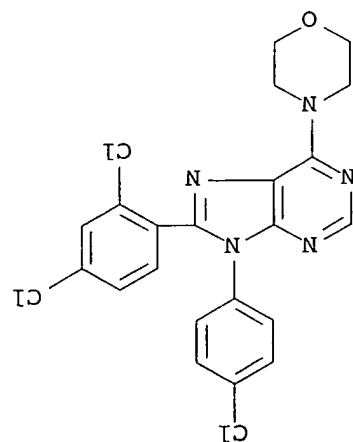
RN 686344-97-8 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-(2,2,2-trifluoroethoxy)- (9CI) (CA INDEX NAME)



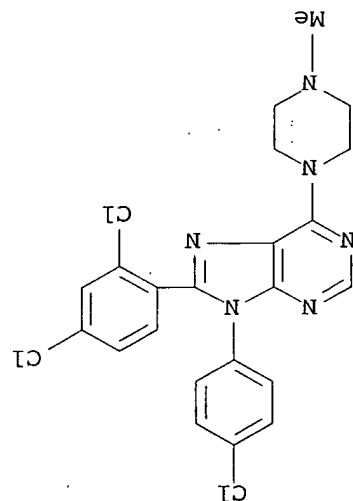
RN 686344-99-0 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-(1-piperidinyl)-  
 (9CI) (CA INDEX NAME)



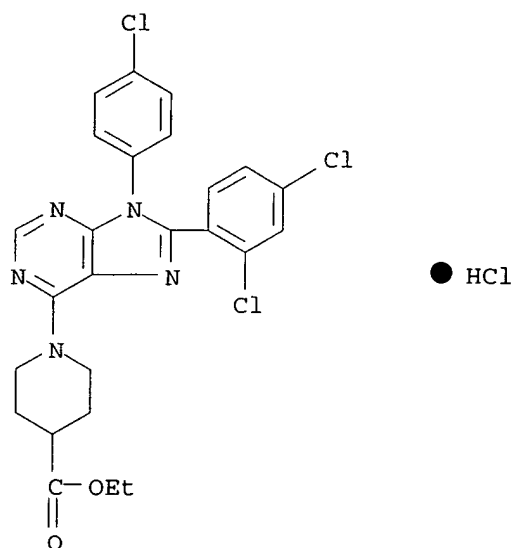
RN 686345-00-6 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-(4-morpholinyl)-  
 (9CI) (CA INDEX NAME)



RN 686345-03-9 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-(4-methyl-1-piperazinyl)-1- (CA INDEX NAME)

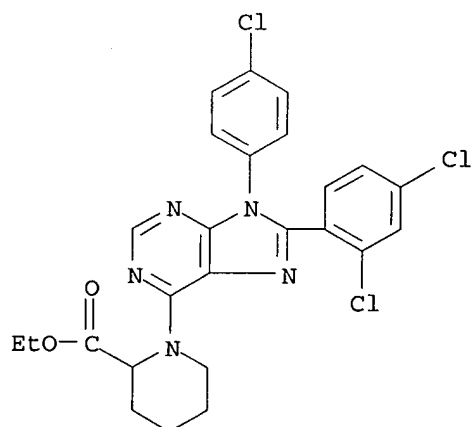


RN 686345-04-0 HCAPLUS  
 CN 4-Piperidinecarboxylic acid, 1-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-, ethyl ester, monohydrochloride (9CI) (CA INDEX NAME)



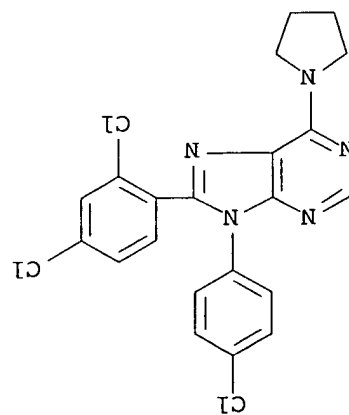
RN 686345-08-4 HCAPLUS

CN: 2-Piperidinecarboxylic acid, 1-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-, ethyl ester (9CI) (CA INDEX NAME)

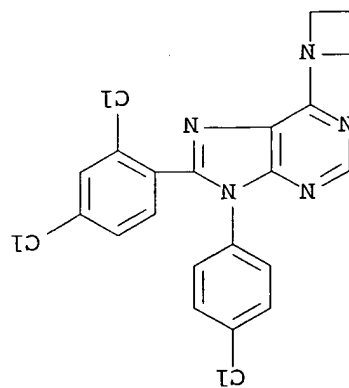


RN 686345-18-6 HCAPLUS

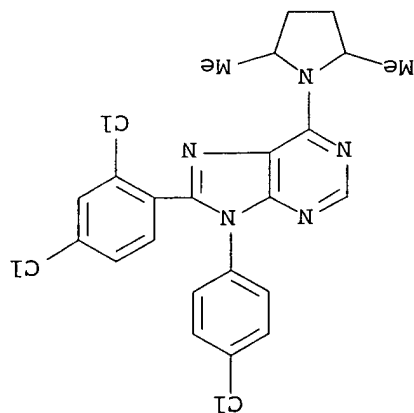
CN: 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



RN 686345-21-1 HCAPLUS  
 CN 9H-Purine, 6-(1-azetidiny1)-9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)- (9CI) (CA INDEX NAME)

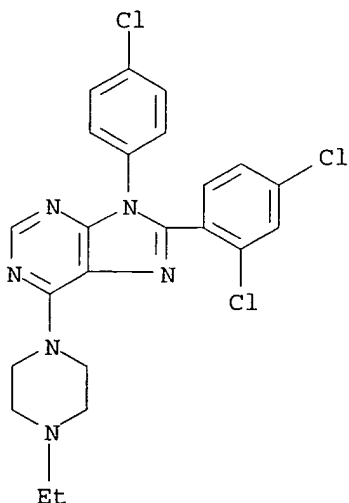


RN 686345-26-6 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-(2,5-dimethyl-1-pyrrolydiny1)- (9CI) (CA INDEX NAME)



RN 686345-42-6 HCAPLUS

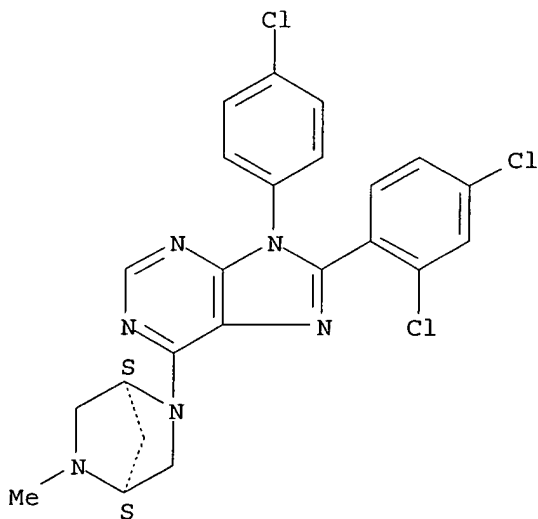
CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-(4-ethyl-1-piperazinyl)- (9CI) (CA INDEX NAME)



RN 686345-43-7 HCAPLUS

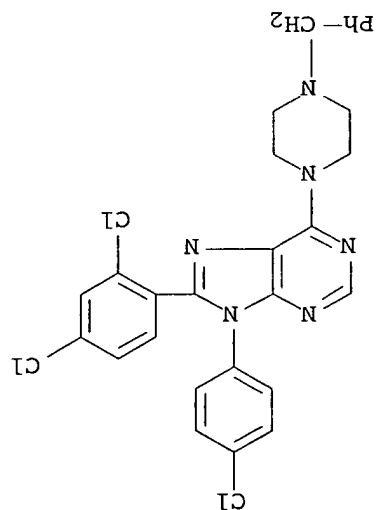
CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-[(1S,4S)-5-methyl-2,5-diazabicyclo[2.2.1]hept-2-yl]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.



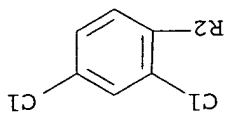
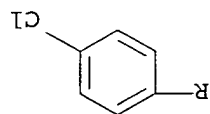
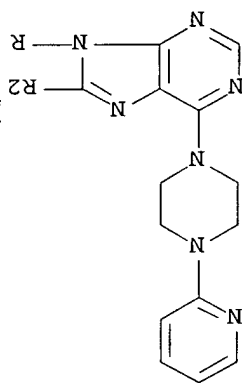
RN 686345-44-8 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-[4-(phenylmethyl)-1-piperazinyl]- (9CI) (CA INDEX NAME)



RN 686345-45-9 HCAPLUS  
 CN 9H-purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-[4-(2-pyridinyl)]-1-  
 piperazinyl] - (9CI) (CA INDEX NAME)

PAGE 1-A

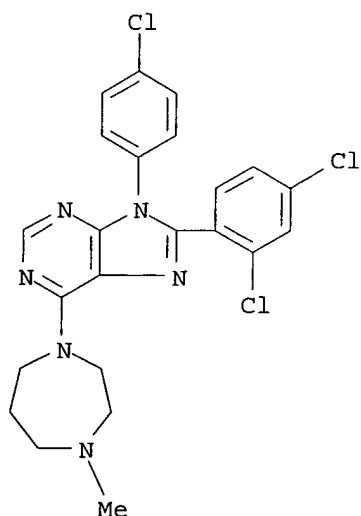


PAGE 2-A



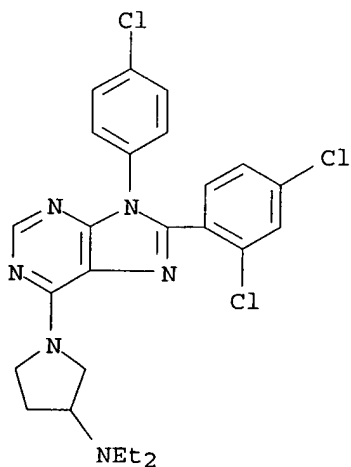
RN 686345-46-0 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-(hexahydro-4-methyl-1H-1,4-diazepin-1-yl)- (9CI) (CA INDEX NAME)



RN 686345-49-3 HCAPLUS

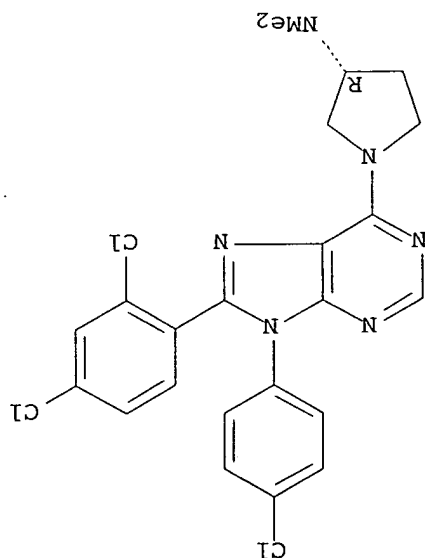
CN 3-Pyrrolidinamine, 1-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-N,N-diethyl- (9CI) (CA INDEX NAME)



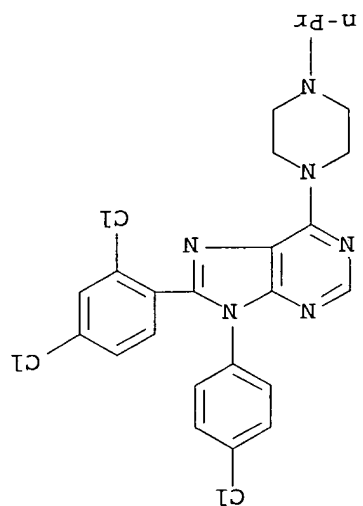
RN 686345-51-7 HCAPLUS

CN 3-Pyrrolidinamine, 1-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-N,N-dimethyl-, (3R)- (9CI) (CA INDEX NAME)

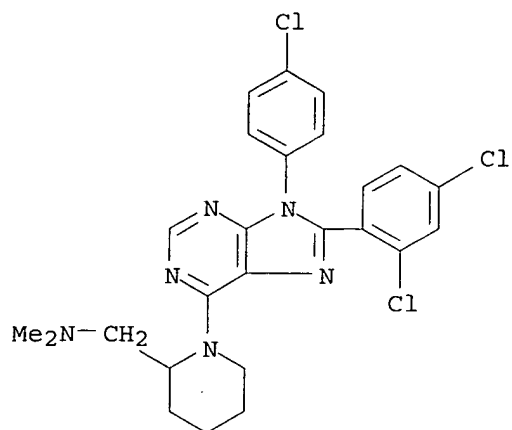
Absolute stereochemistry.



RN 686345-52-8 HCAPLUS  
 CN 9H-purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-(4-propyl-1-piperazinyl)-1- (9CI) (CA INDEX NAME)



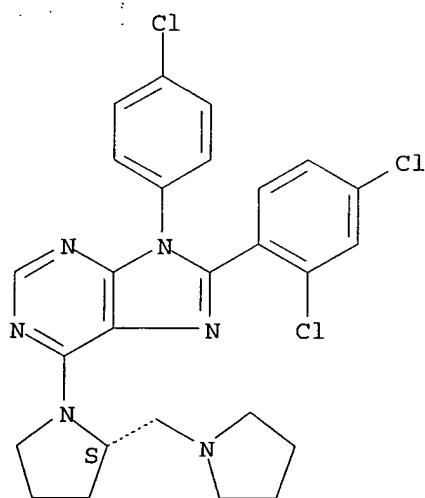
RN 686345-53-9 HCAPLUS  
 CN 2-piperidinemethanamine, 1-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-N,N-dimethyl- (9CI) (CA INDEX NAME)



RN 686345-57-3 HCAPLUS

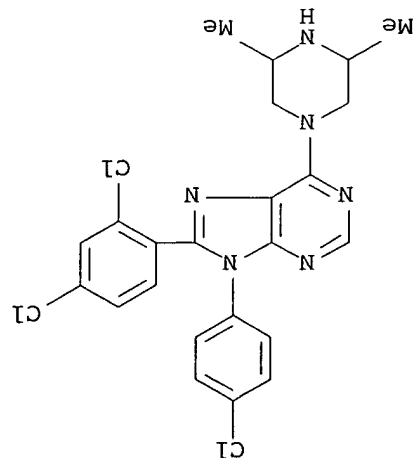
CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-[(2S)-2-(1-pyrrolidinylmethyl)-1-pyrrolidinyl]-(9CI) (CA INDEX NAME)

Absolute stereochemistry.



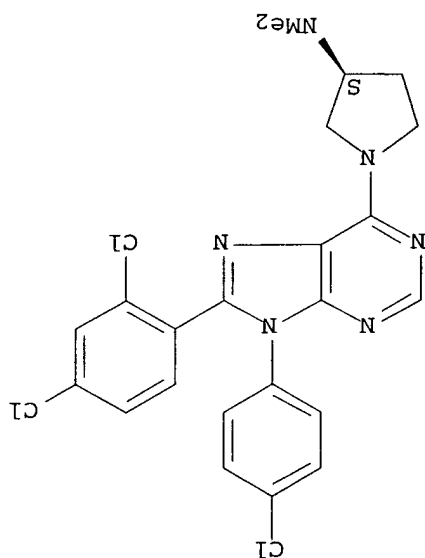
RN 686345-58-4 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-(3,5-dimethyl-1-piperazinyl)-(9CI) (CA INDEX NAME)

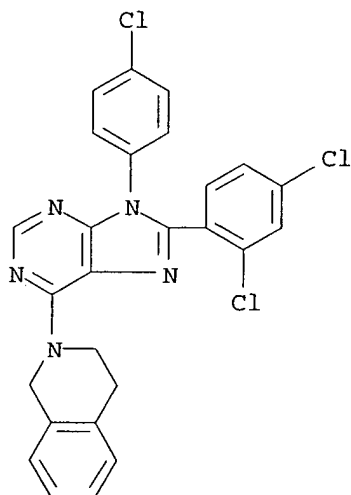


RN 686345-59-5 HCAPLUS  
CN 3-pyrrolidinamine, 1-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-N,N-dimethyl-, (3S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

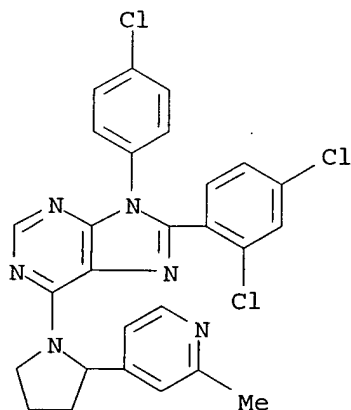


RN 686345-70-0 HCAPLUS  
CN 1,2,3,4-tetrahydro-2-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-N,N-dimethyl-, (9CI) (CA INDEX NAME)



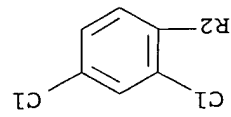
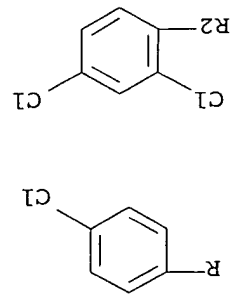
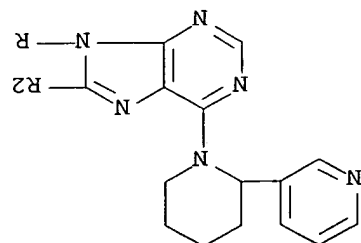
RN 686345-80-2 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-[2-(2-methyl-4-pyridinyl)-1-pyrrolidinyl]- (9CI) (CA INDEX NAME)

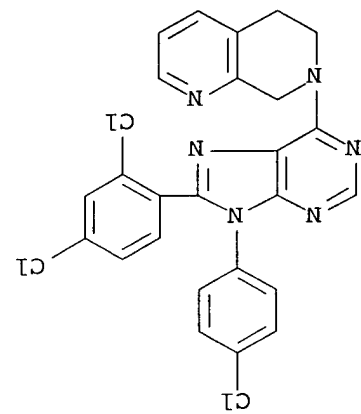


RN 686345-81-3 HCAPLUS

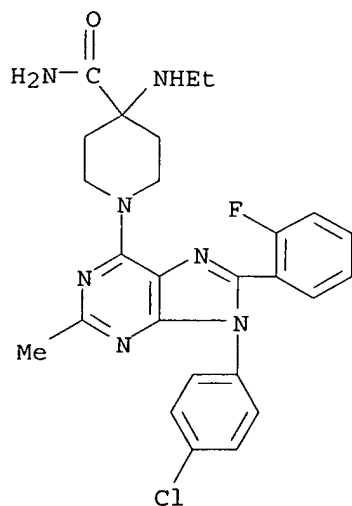
CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-[2-(3-pyridinyl)-1-piperidinyl]- (9CI) (CA INDEX NAME)



RN 686345-82-4 HCAPLUS  
 CN 1,7-Naphthyridine, 7-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-5,6,7,8-tetrahydro- (9CI) (CA INDEX NAME)

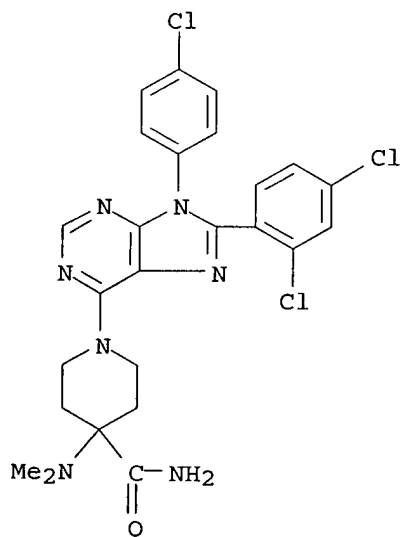


RN 686345-85-7 HCAPLUS  
 CN 4-Piperidinecarboxamide, 1-[9-(4-chlorophenyl)-8-(2-fluorophenyl)-2-methyl-9H-purin-6-yl]-4-(ethylamino) - (9CI) (CA INDEX NAME)



RN 686345-86-8 HCAPLUS

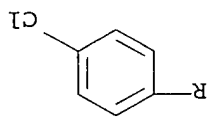
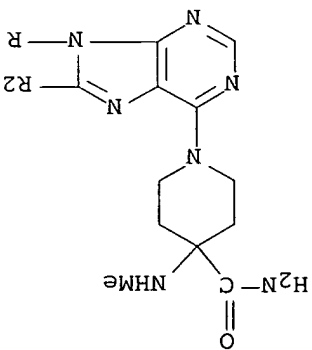
CN 4-Piperidinecarboxamide, 1-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-4-(dimethylamino)- (9CI) (CA INDEX NAME)



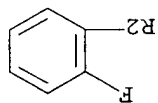
RN 686345-87-9 HCAPLUS

CN 4-Piperidinecarboxamide, 1-[9-(4-chlorophenyl)-8-(2-fluorophenyl)-9H-purin-6-yl]-4-(methylamino)- (9CI) (CA INDEX NAME)

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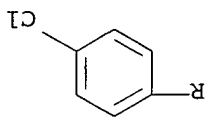
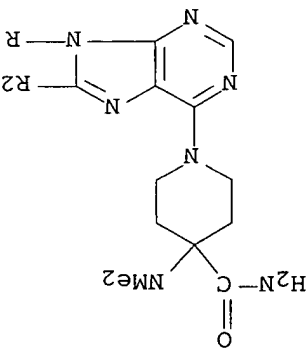


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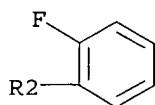
RN 686345-88-0 HCAPLUS  
 CN 4-piperidinecarboxamide, 1-[9-(4-chlorophenyl)-8-(2-fluorophenyl)-9H-purin-6-yl]-4-(dimethylamino) - (9CI) (CA INDEX NAME)

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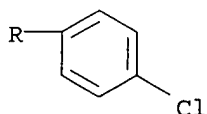
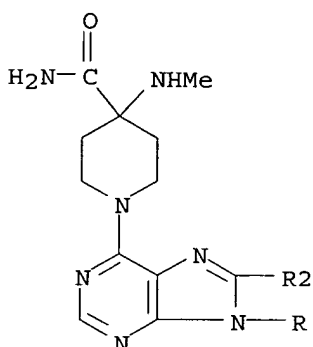


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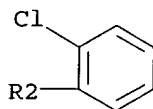


RN 686345-89-1 HCAPLUS  
CN 4-Piperidinecarboxamide, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-(methylamino)- (9CI) (CA INDEX NAME)

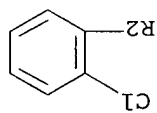
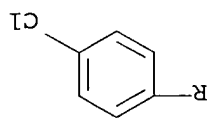
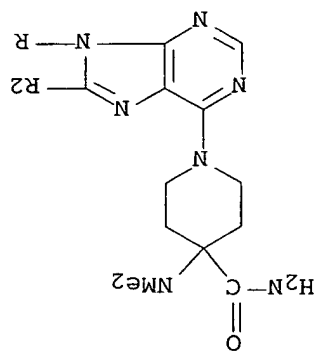
PAGE 1-A



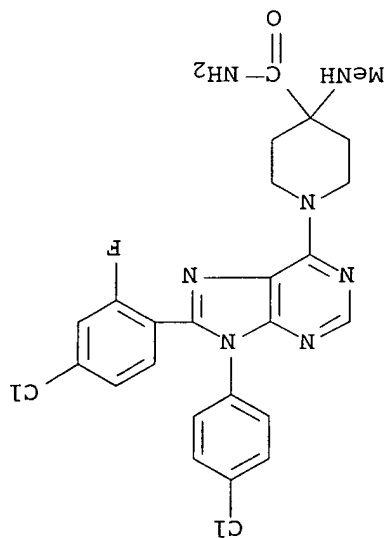
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RN 686345-90-4 HCAPLUS  
CN 4-Piperidinecarboxamide, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-(dimethylamino)- (9CI) (CA INDEX NAME)

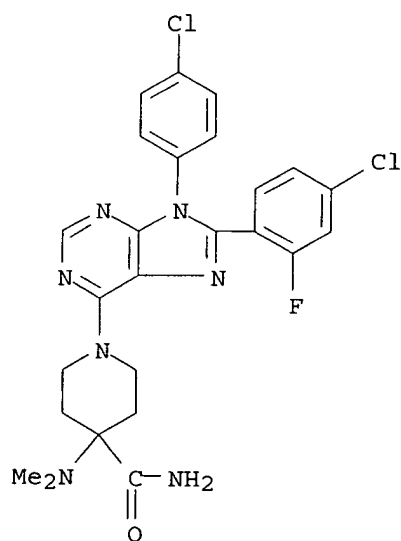


RN	686345-91-5	HCAPLUS
CN	4-Piperidinecarboxamide, 1-[8-(4-chloro-2-fluorophenyl)-9-(4-chlorophenyl)-	9H-purin-6-yl]-4-(methylamino) - (9CI) (CA INDEX NAME)



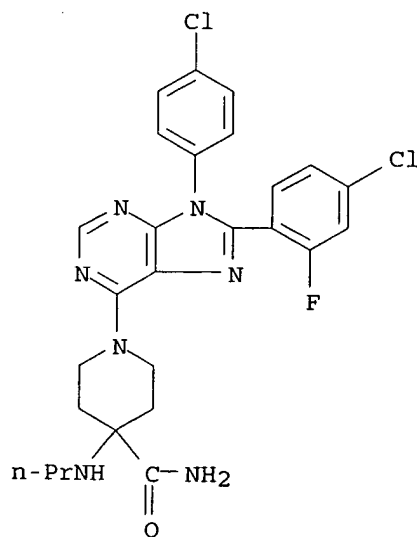
RN 686345-92-6 HCAPLUS

CN 4-Piperidinecarboxamide, 1-[8-(4-chloro-2-fluorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-(dimethylamino)- (9CI) (CA INDEX NAME)



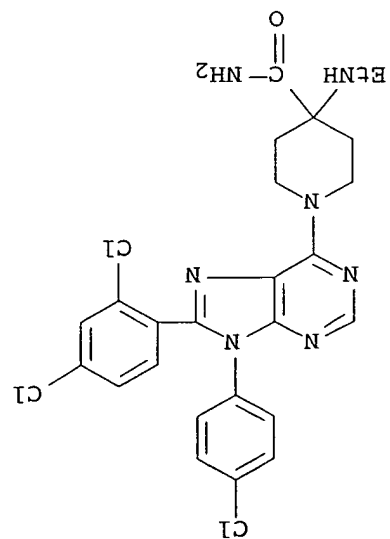
RN 686345-93-7 HCAPLUS

CN 4-Piperidinecarboxamide, 1-[8-(4-chloro-2-fluorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-(propylamino)- (9CI) (CA INDEX NAME)



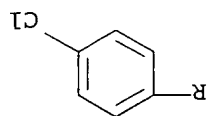
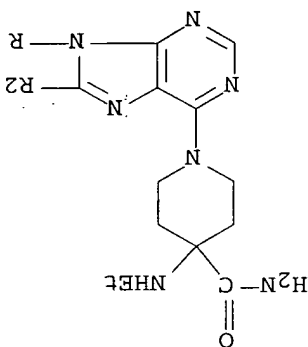
RN 686345-94-8 HCAPLUS

CN 4-Piperidinecarboxamide, 1-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-4-(ethylamino)- (9CI) (CA INDEX NAME)

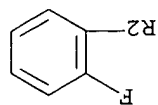


RN 686345-95-9 HCAPLUS  
 CN 4-piperidinecarboxamide, 1-[9-(4-chlorophenyl)-8-(2-fluorophenyl)-9H-purin-6-yl]-4-(ethylamino) - (9CI) (CA INDEX NAME)

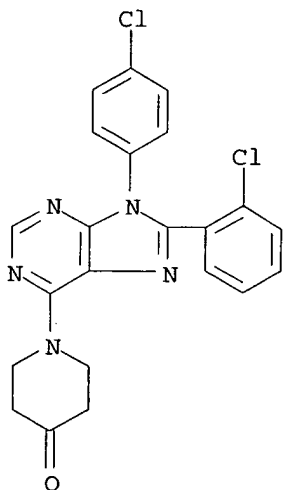
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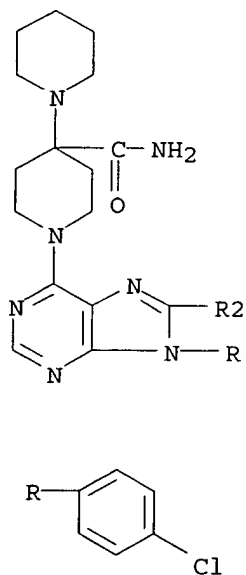


RN 686345-96-0 HCAPLUS

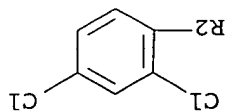
CN 4-Piperidinone, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-  
(9CI) (CA INDEX NAME)

RN 686345-97-1 HCAPLUS

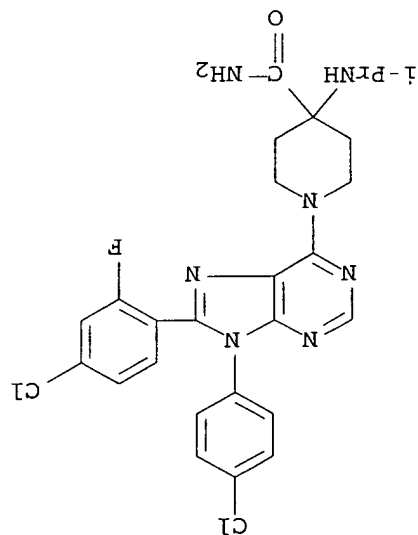
CN [1,4'-Bipiperidine]-4'-carboxamide, 1'-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]- (9CI) (CA INDEX NAME)



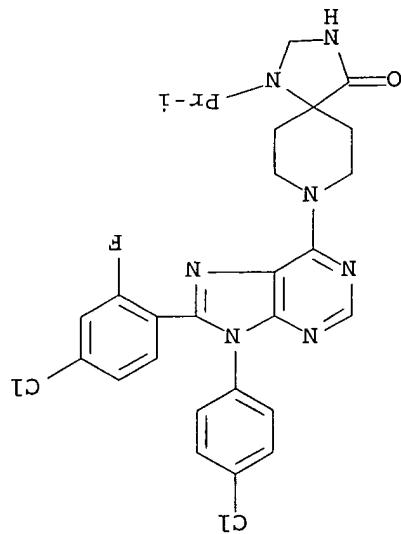
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RN 686345-98-2 HCAPLUS  
 CN 4-Piperidinecarboxamide, 1-[8-(4-chloro-2-fluorophenyl)-9-(4-chlorophenyl)]-9H-purin-6-yl]-4-[(1-methylethyl)amino] - (9CI) (CA INDEX NAME)



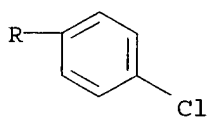
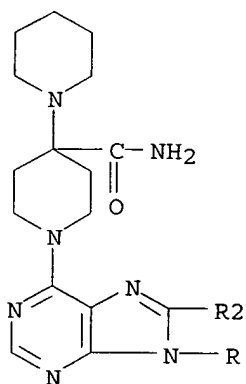
RN 686345-99-3 HCAPLUS  
 CN 1,3,8-Triazaspiro[4.5]decan-4-one, 8-[8-(4-chloro-2-fluorophenyl)-9-(4-chlorophenyl)]-9H-purin-6-yl]-1-(1-methylethyl) - (9CI) (CA INDEX NAME)



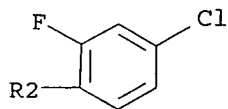
RN 686346-00-9 HCAPLUS

CN [1,4'-Bipiperidine]-4'-carboxamide, 1'-[8-(4-chloro-2-fluorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]- (9CI) (CA INDEX NAME)

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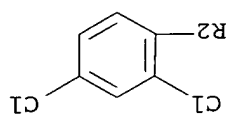
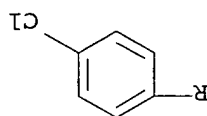
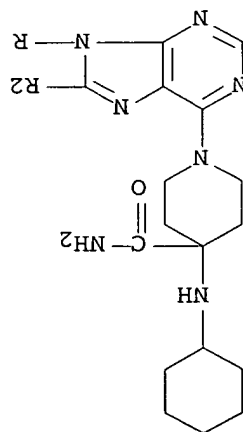


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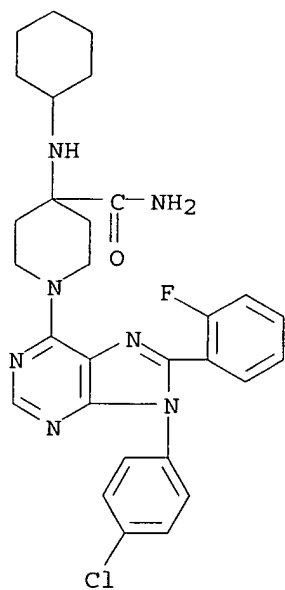
RN 686346-01-0 HCAPLUS

CN 4-Piperidinecarboxamide, 1-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-4-(cyclohexylamino)- (9CI) (CA INDEX NAME)



RN 686346-02-1 HCAPLUS  
 CN 4-piperidinecarboxamide, 1-[9-(4-chlorophenyl)-8-(2-fluorophenyl)-9H-purin-6-yl]-4-(cyclohexylamino) - (9CI) (CA INDEX NAME)

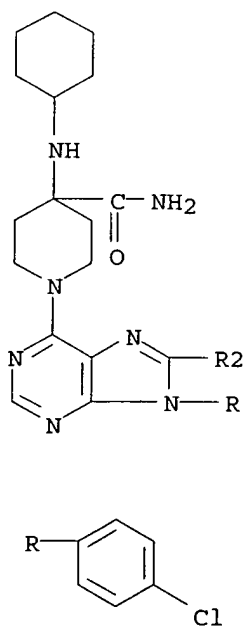


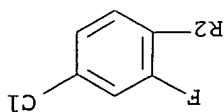


RN 686346-03-2 HCAPLUS

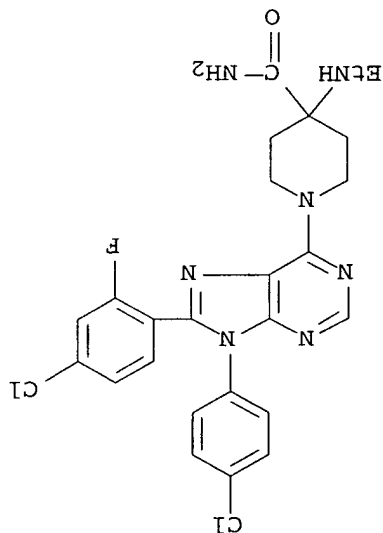
CN 4-Piperidinecarboxamide, 1-[8-(4-chloro-2-fluorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-(cyclohexylamino)- (9CI) (CA INDEX NAME)

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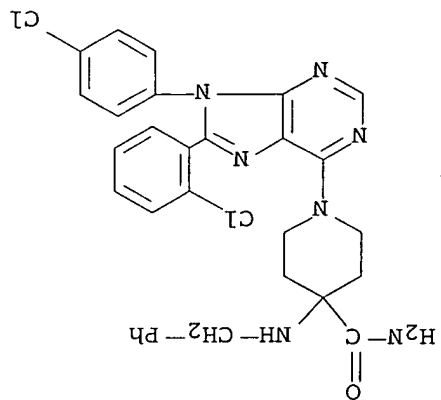




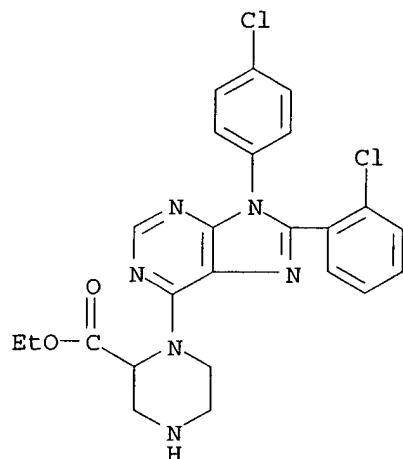
RN 686346-04-3 HCAPLUS  
 CN 4-Piperidinecarboxamide, 1-[8-(4-chloro-2-fluorophenyl)-9-(4-chlorophenyl)]-9H-purin-6-yl]-4-(ethylamino)- (9CI) (CA INDEX NAME)



RN 686346-05-4 HCAPLUS  
 CN 4-Piperidinecarboxamide, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)]-9H-purin-6-yl]-4-[(phenylmethyl)amino]- (9CI) (CA INDEX NAME)



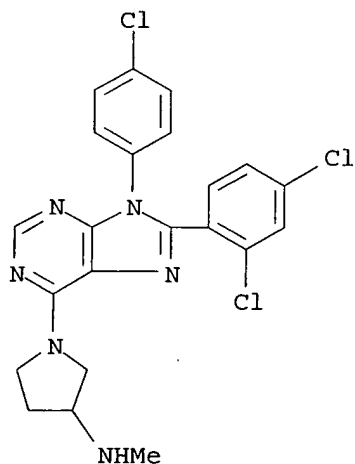
RN 686346-07-6 HCAPLUS  
 CN 2-Piperazinecarboxylic acid, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)]-9H-purin-6-yl]-, ethyl ester, dihydrochloride (9CI) (CA INDEX NAME)



● 2 HCl

RN 686346-08-7 HCAPLUS

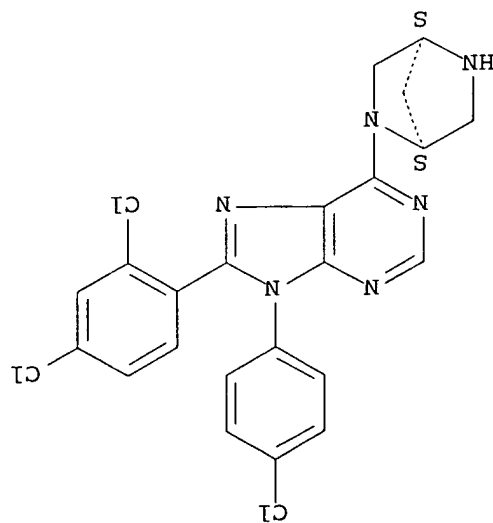
CN 3-Pyrrolidinamine, 1-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-N-methyl- (9CI) (CA INDEX NAME)



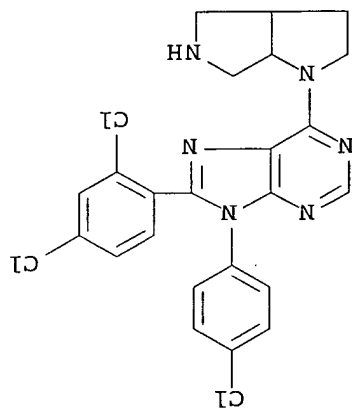
RN 686346-09-8 HCAPLUS

CN 2,5-Diazabicyclo[2.2.1]heptane, 2-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-, (1S,4S)- (9CI) (CA INDEX NAME)

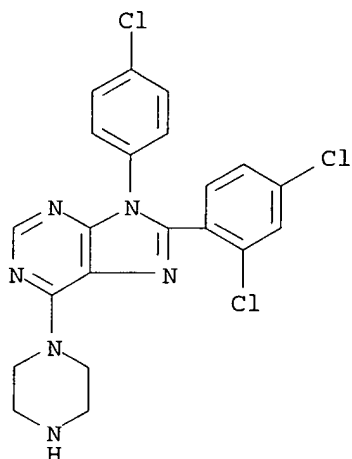
Absolute stereochemistry.



RN 686346-10-1 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-(hexahydrothiopyrrolo[3,4-b]pyrrol-1(2H)-yl) - (9CI) (CA INDEX NAME)



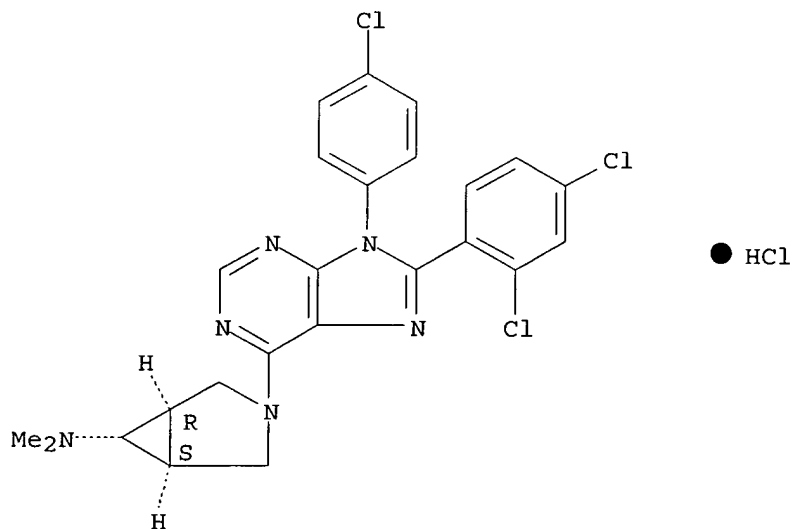
RN 686346-11-2 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-6-(1-piperazinyl) - (9CI) (CA INDEX NAME)



RN 686346-13-4 HCAPLUS

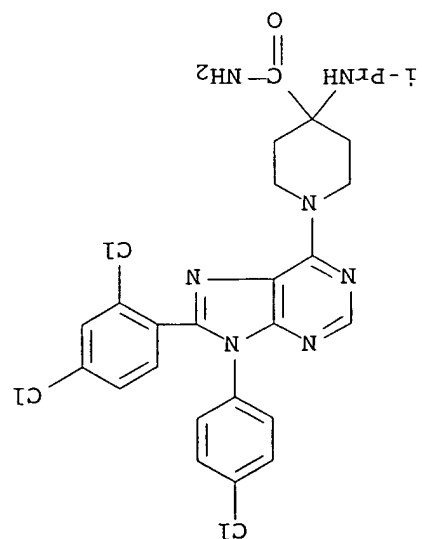
CN 3-Azabicyclo[3.1.0]hexan-6-amine, 3-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-N,N-dimethyl-, monohydrochloride, (1 $\alpha$ ,5 $\alpha$ ,6 $\alpha$ )-(9CI) (CA INDEX NAME)

Relative stereochemistry.

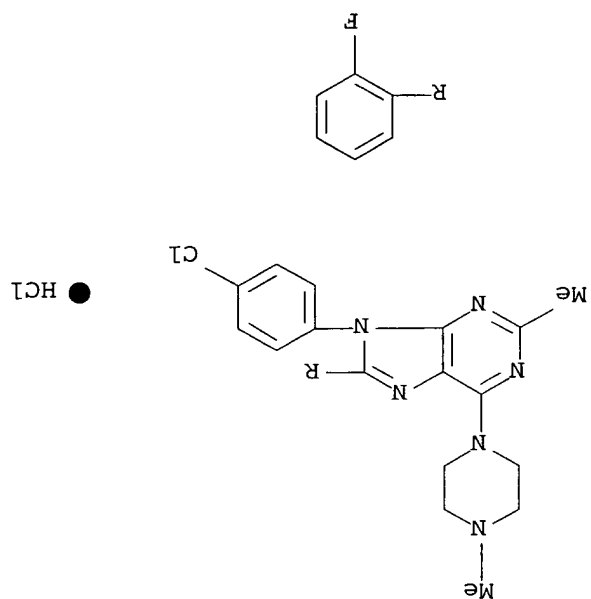


RN 686346-14-5 HCAPLUS

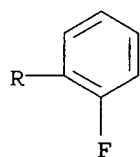
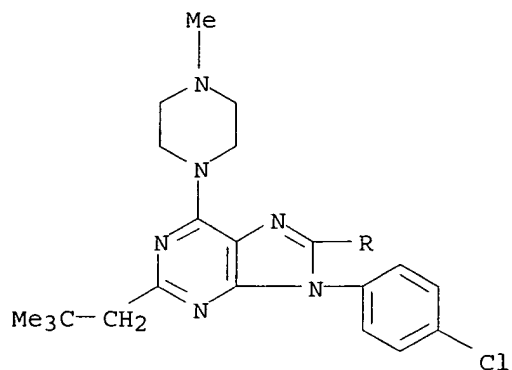
CN 4-Piperidinecarboxamide, 1-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-4-[(1-methylethyl)amino]-, monohydrochloride (9CI) (CA INDEX NAME)



RN 686346-15-6 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-8-(2-fluorophenyl)-2-methyl-6-(4-methyl-1-piperazinyl)-, monohydrochloride (9CI) (CA INDEX NAME)

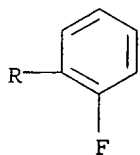
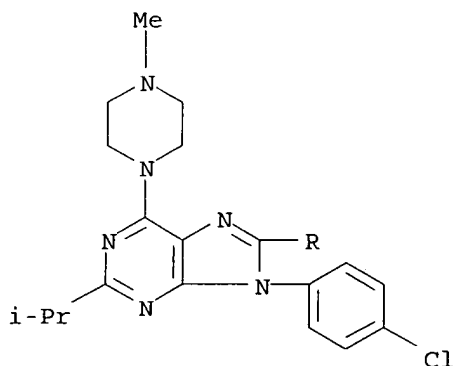


RN 686346-17-8 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-2-(2,2-dimethylpropyl)-8-(2-fluorophenyl)-6-(4-methyl-1-piperazinyl)- (9CI) (CA INDEX NAME)



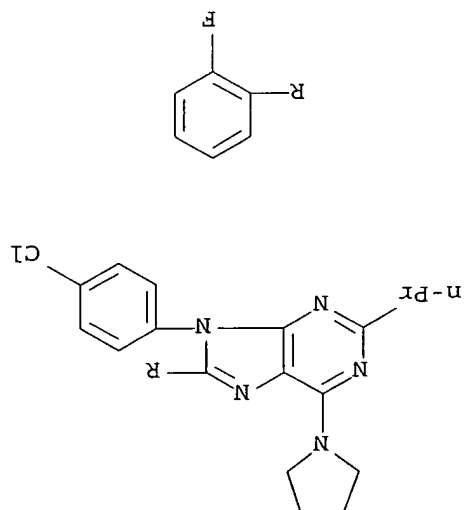
RN 686346-18-9 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-8-(2-fluorophenyl)-2-(1-methylethyl)-6-(4-methyl-1-piperazinyl)- (9CI) (CA INDEX NAME)

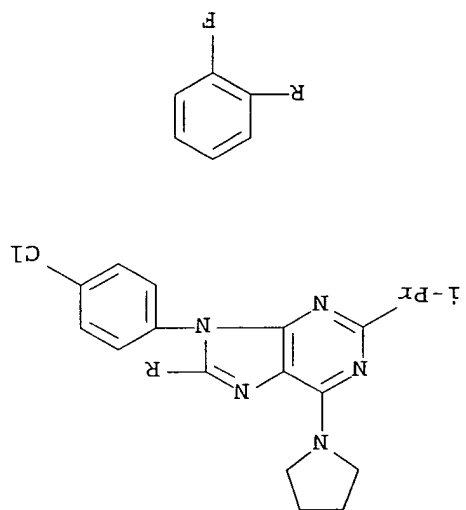


RN 686346-19-0 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-8-(2-fluorophenyl)-2-propyl-6-(1-methylpyrrolidinyl)- (9CI) (CA INDEX NAME)

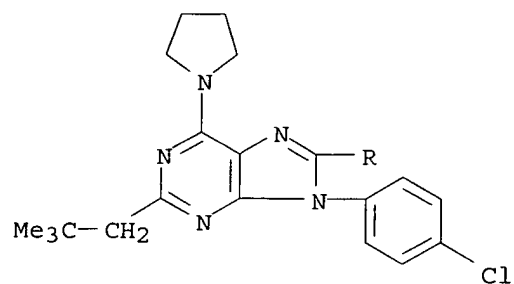


RN 686346-20-3 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-2-(1-methylethyl)-6-(1-pyrrolidinyl) - (9CI) (CA INDEX NAME)



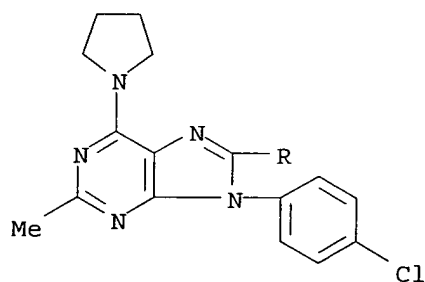
RN 686346-21-4 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-2-(2,2-dimethylpropyl)-8-(2-fluorophenyl)-6-(1-pyrrolidinyl) - (9CI) (CA INDEX NAME)





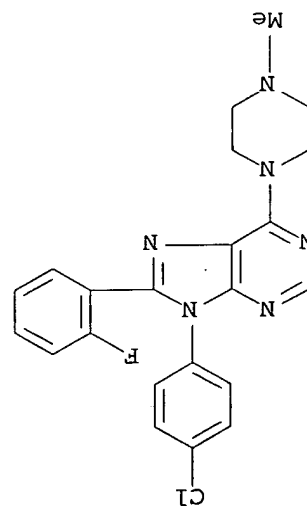
RN 686346-22-5 HCAPLUS

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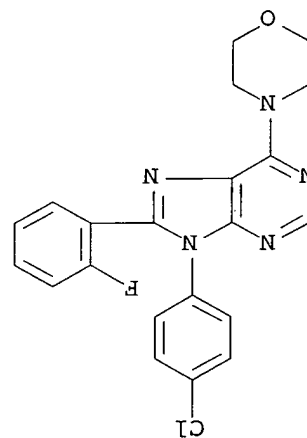


RN 686346-23-6 HCAPLUS

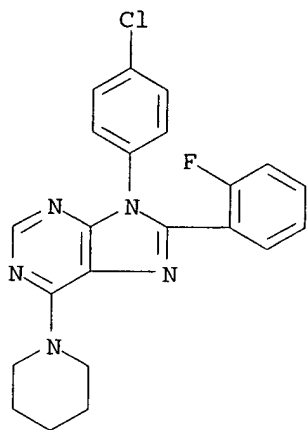
CN 9H-Purine, 9-(4-chlorophenyl)-8-(2-fluorophenyl)-6-(4-methyl-1-piperazinyl)- (9CI) (CA INDEX NAME)



RN 686346-24-7 HCAPLUS  
CN 9H-Purine, 9-(4-chlorophenyl)-8-(2-fluorophenyl)-6-(4-morpholinyl) - (9CI)  
(CA INDEX NAME)

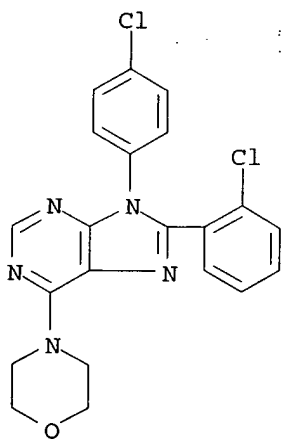


RN 686346-25-8 HCAPLUS  
CN 9H-Purine, 9-(4-chlorophenyl)-8-(2-fluorophenyl)-6-(1-piperidinyl) - (9CI)  
(CA INDEX NAME)



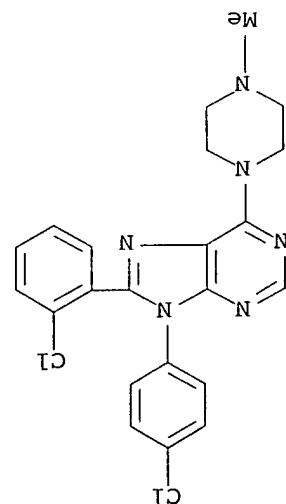
RN 686346-26-9 HCAPLUS

CN 9H-Purine, 8-(2-chlorophenyl)-9-(4-chlorophenyl)-6-(4-morpholinyl)- (9CI)  
(CA INDEX NAME)

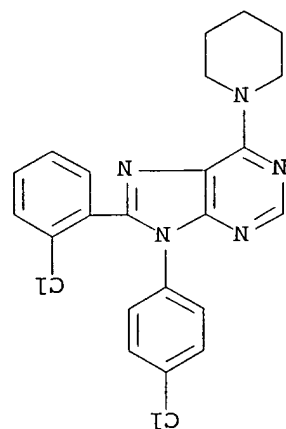


RN 686346-27-0 HCAPLUS

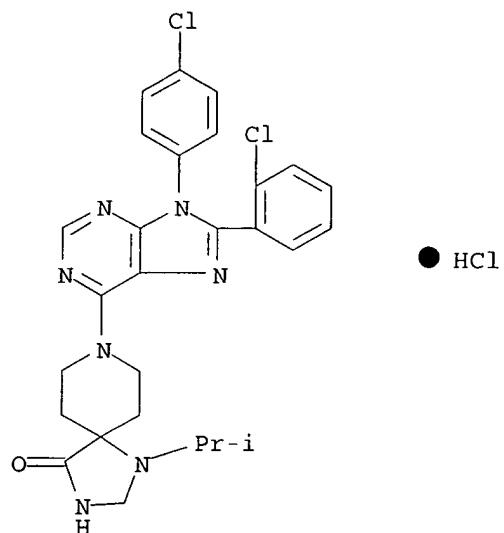
CN 9H-Purine, 8-(2-chlorophenyl)-9-(4-chlorophenyl)-6-(4-methyl-1-piperazinyl)- (9CI) (CA INDEX NAME)



RN 686346-28-1 HCAPLUS  
 CN 9H-purine, 8-(2-chlorophenyl)-9-(4-chlorophenyl)-6-(1-piperidinyl) - (9CI)  
 (CA INDEX NAME)

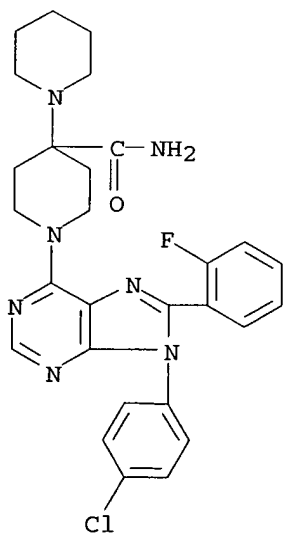


RN 686346-31-6 HCAPLUS  
 CN 1,3,8-Triazaspiro[4.5]decan-4-one, 8-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-1-(1-methylethyl)-, monohydrochloride (9CI)  
 (CA INDEX NAME)



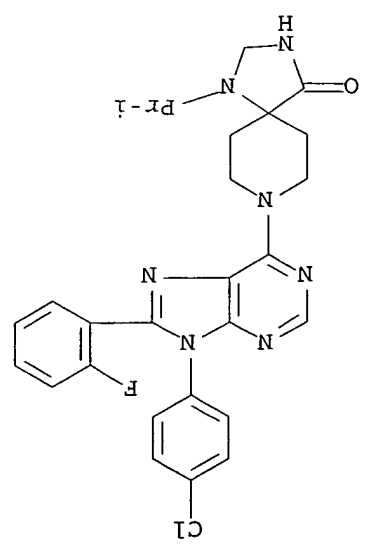
RN 686346-32-7 HCAPLUS

CN [1,4'-Bipiperidine]-4'-carboxamide, 1'-[9-(4-chlorophenyl)-8-(2-fluorophenyl)-9H-purin-6-yl]- (9CI) (CA INDEX NAME)

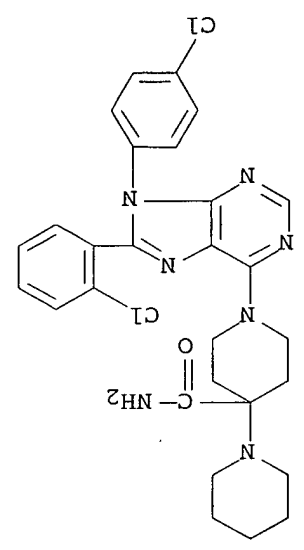


RN 686346-33-8 HCAPLUS

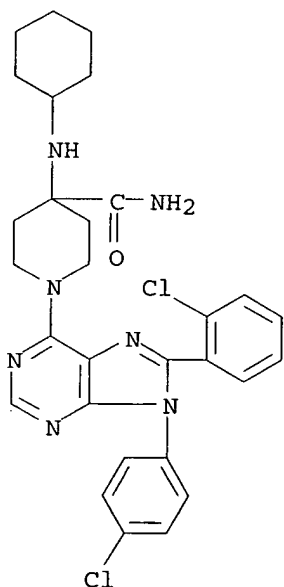
CN 1,3,8-Triazaspiro[4.5]decan-4-one, 8-[9-(4-chlorophenyl)-8-(2-fluorophenyl)-9H-purin-6-yl]-1-(1-methylethyl)- (9CI) (CA INDEX NAME)



RN 686346-35-0 HCAPLUS  
 CN [1,4'-Bipiperidine]-4'-carboxamide, 1'-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl] - (9CI) (CA INDEX NAME)

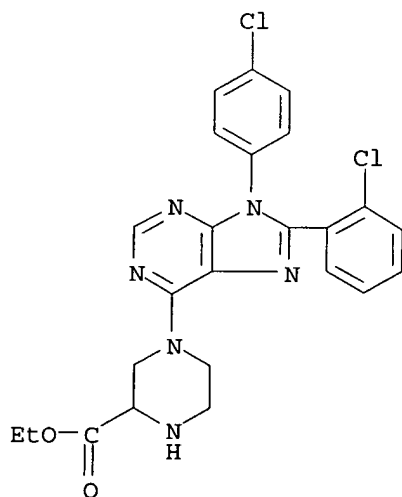


RN 686346-36-1 HCAPLUS  
 CN 4-Piperidinecarboxamide, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl] - (9CI) (CA INDEX NAME)



RN 686346-37-2 HCAPLUS

CN 2-Piperazinecarboxylic acid, 4-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-, ethyl ester (9CI) (CA INDEX NAME)

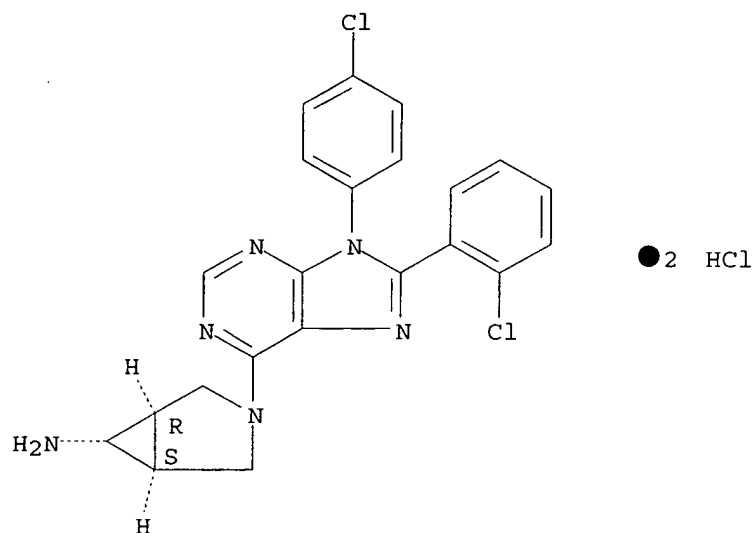


RN 686346-38-3 HCAPLUS

CN 3-Azetidinecarboxamide, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-3-hydroxy- (9CI) (CA INDEX NAME)



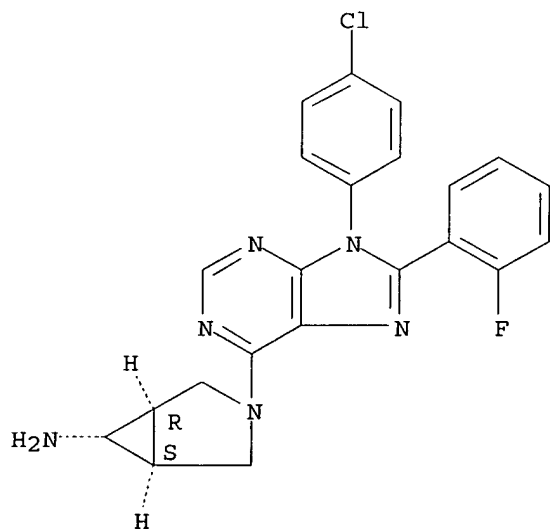




RN 686346-43-0 HCAPLUS

CN 3-Azabicyclo[3.1.0]hexan-6-amine, 3-[9-(4-chlorophenyl)-8-(2-fluorophenyl)-9H-purin-6-yl]-, (1α,5α,6α)-(9CI) (CA INDEX NAME)

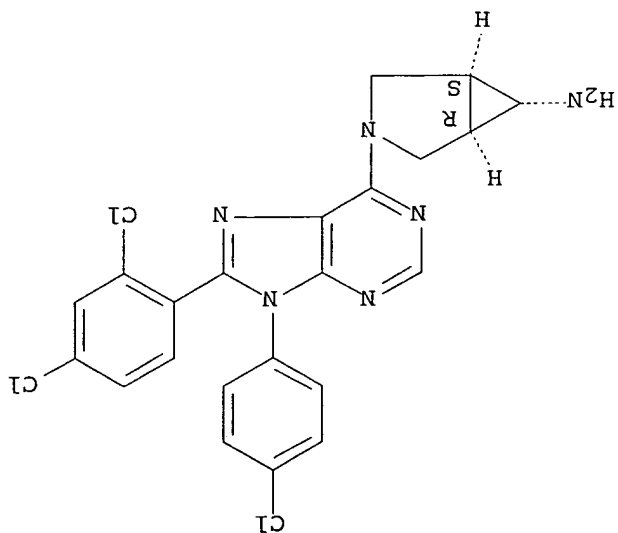
Relative stereochemistry.



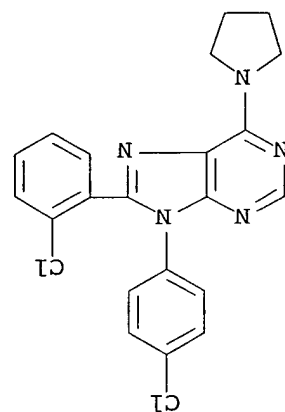
RN 686346-46-3 HCAPLUS

CN 3-Azabicyclo[3.1.0]hexan-6-amine, 3-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-, (1α,5α,6α)-(9CI) (CA INDEX NAME)

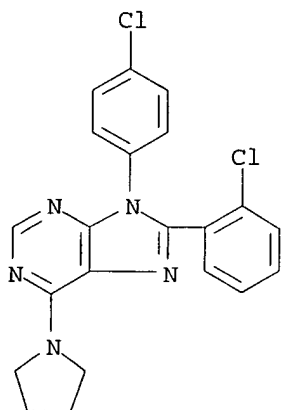
Absolute stereochemistry.



RN 686346-59-8 HCAPLUS  
 CN 9H-Purine, 8-(2-chlorophenyl)-9-(4-chlorophenyl)-6-(1-pyrrolidinyl)-(9CI)  
 (CA INDEX NAME)

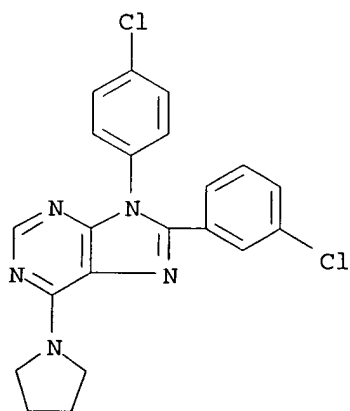


RN 686346-61-2 HCAPLUS  
 CN 9H-Purine, 8-(2-chlorophenyl)-9-(4-chlorophenyl)-6-(1-pyrrolidinyl)-,  
 monohydrochloride (9CI)  
 (CA INDEX NAME)

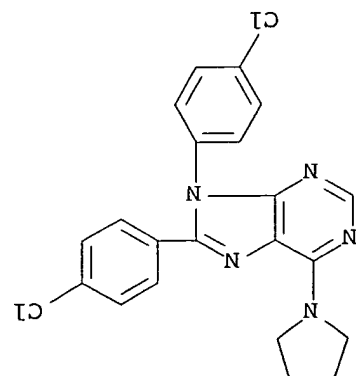


● HCl

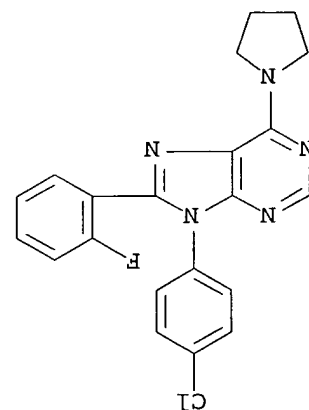
RN 686346-62-3 HCAPLUS  
CN 9H-Purine, 8-(3-chlorophenyl)-9-(4-chlorophenyl)-6-(1-pyrrolidinyl)- (9CI)  
(CA INDEX NAME)



RN 686346-63-4 HCAPLUS  
CN 9H-Purine, 8,9-bis(4-chlorophenyl)-6-(1-pyrrolidinyl)- (9CI) (CA INDEX  
NAME)

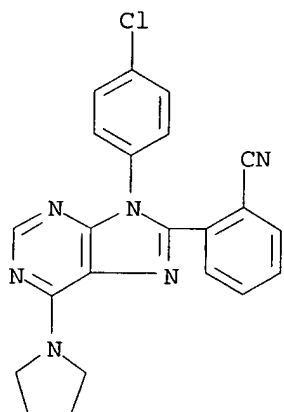


RN 686346-64-5 HCAPLUS  
 CN 9H-purine, 9-(4-chlorophenyl)-8-(2-fluorophenyl)-6-(1-pyrrolidin-8-yl)-, monohydrochloride (9CI) (CA INDEX NAME)



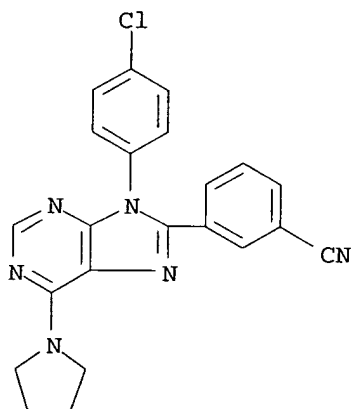
● HCl

RN 686346-65-6 HCAPLUS  
 CN Benzonitrile, 2-[9-(4-chlorophenyl)-6-(1-pyrrolidin-8-yl)-9H-purin-8-yl]- (9CI) (CA INDEX NAME)



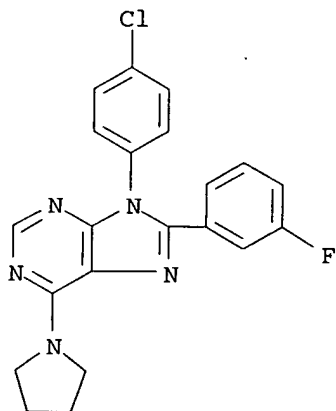
RN 686346-66-7 HCAPLUS

CN Benzonitrile, 3-[9-(4-chlorophenyl)-6-(1-pyrrolidinyl)-9H-purin-8-yl]-  
(9CI) (CA INDEX NAME)

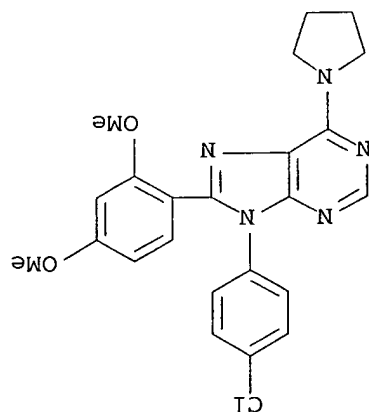


RN 686346-67-8 HCAPLUS

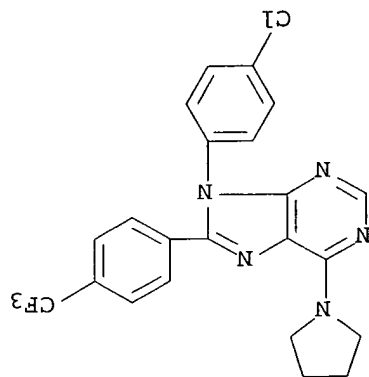
CN 9H-Purine, 9-(4-chlorophenyl)-8-(3-fluorophenyl)-6-(1-pyrrolidinyl)- (9CI)  
(CA INDEX NAME)



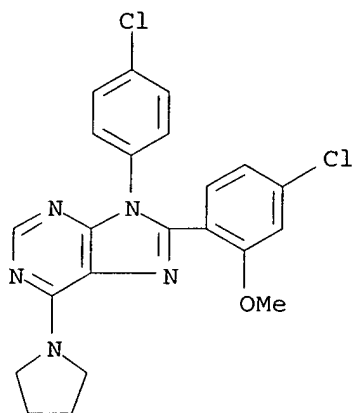
RN 686346-68-9 HCAPLUS  
 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-dimethoxyphenyl)-6-(1-pyrrolidinyl) - (9CI) (CA INDEX NAME)



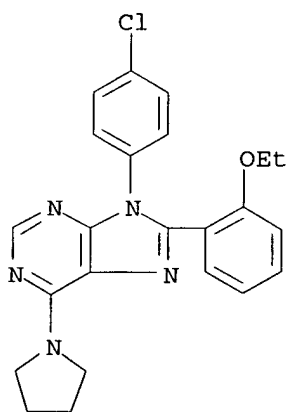
RN 686346-69-0 HCAPLUS  
 9H-Purine, 9-(4-chlorophenyl)-6-(1-pyrrolidinyl)-8-[4-(trifluoromethyl)phenyl] - (9CI) (CA INDEX NAME)



RN 686346-70-3 HCAPLUS  
 9H-Purine, 8-(4-chloro-2-methoxyphenyl)-9-(4-chlorophenyl)-6-(1-pyrrolidinyl) - (9CI) (CA INDEX NAME)

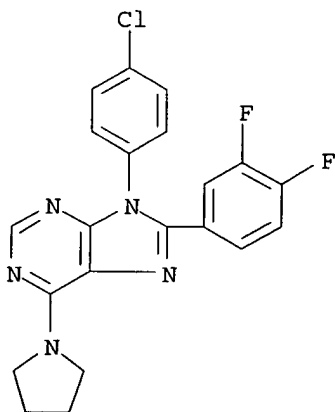


RN 686346-71-4 HCAPLUS

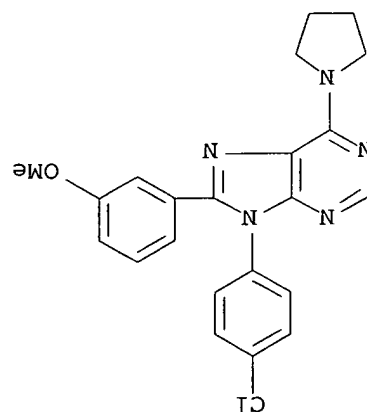
CN 9H-Purine, 9-(4-chlorophenyl)-8-(2-ethoxyphenyl)-6-(1-pyrrolidinyl)- (9CI)  
(CA INDEX NAME)

RN 686346-72-5 HCAPLUS

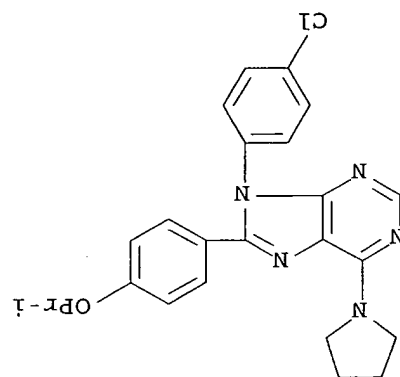
CN 9H-Purine, 9-(4-chlorophenyl)-8-(3,4-difluorophenyl)-6-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



RN 686346-73-6 HCAPLUS  
 9H-Purine, 9-(4-chlorophenyl)-8-(3-methoxyphenyl)-6-(1-pyrrolidinyl) -  
 (9CI) (CA INDEX NAME)

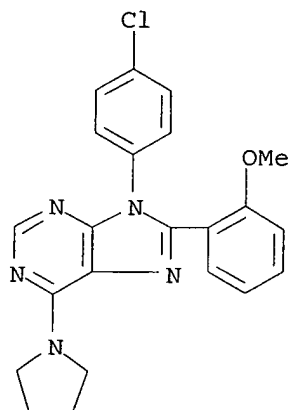


RN 686346-74-7 HCAPLUS  
 9H-Purine, 9-(4-chlorophenyl)-8-[4-(1-methylethoxy)phenyl]-6-(1-pyrrolidinyl) -  
 (9CI) (CA INDEX NAME)



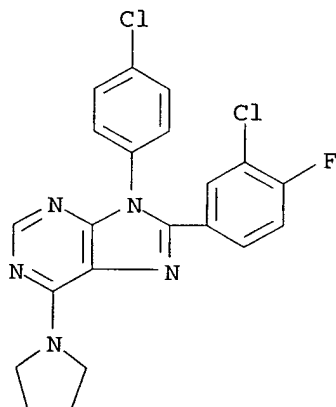
RN 686346-75-8 HCAPLUS  
 9H-Purine, 9-(4-chlorophenyl)-8-(2-methoxyphenyl)-6-(1-pyrrolidinyl) -  
 (9CI) (CA INDEX NAME)





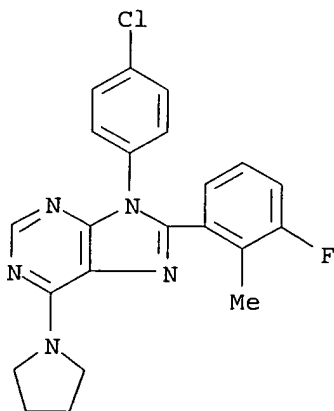
RN 686346-76-9 HCAPLUS

CN 9H-Purine, 8-(3-chloro-4-fluorophenyl)-9-(4-chlorophenyl)-6-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)

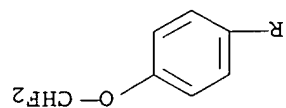
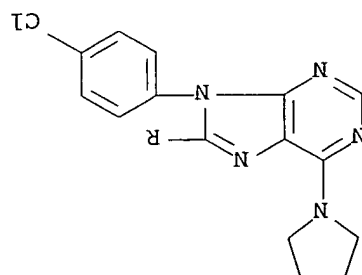


RN 686346-77-0 HCAPLUS

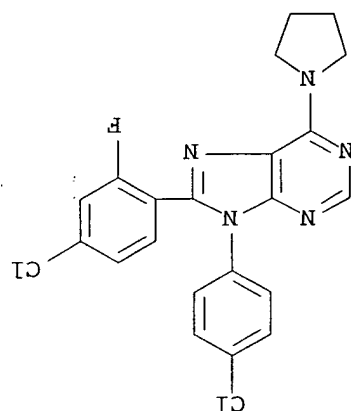
CN 9H-Purine, 9-(4-chlorophenyl)-8-(3-fluoro-2-methylphenyl)-6-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



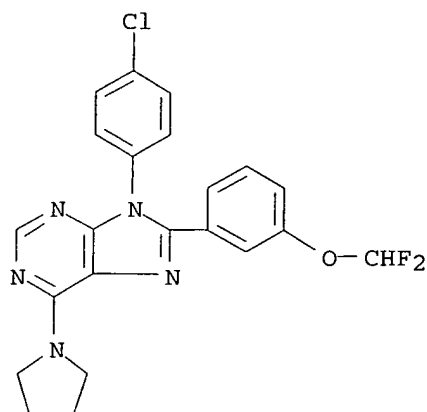
RN 686346-78-1 HCAPLUS  
 9H-purine, 9-(4-chlorophenyl)-8-[4-(difluoromethoxy)phenyl]-6-(1-pyrrolidinyl) - (9CI) (CA INDEX NAME)



RN 686346-79-2 HCAPLUS  
 9H-purine, 8-(4-chloro-2-fluorophenyl)-9-(4-chlorophenyl)-6-(1-pyrrolidinyl) - (9CI) (CA INDEX NAME)

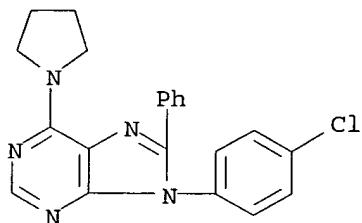


RN 686346-80-5 HCAPLUS  
 9H-purine, 9-(4-chlorophenyl)-8-[3-(difluoromethoxy)phenyl]-6-(1-pyrrolidinyl) - (9CI) (CA INDEX NAME)



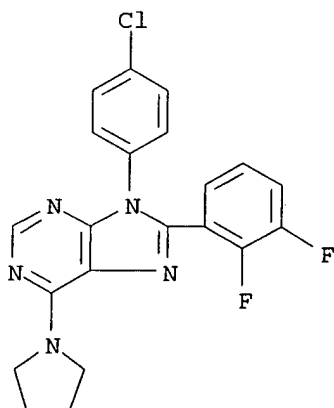
RN 686346-81-6 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-8-phenyl-6-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



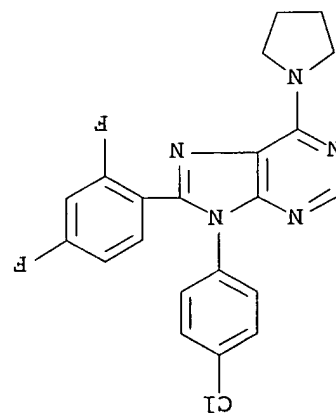
RN 686346-82-7 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,3-difluorophenyl)-6-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)

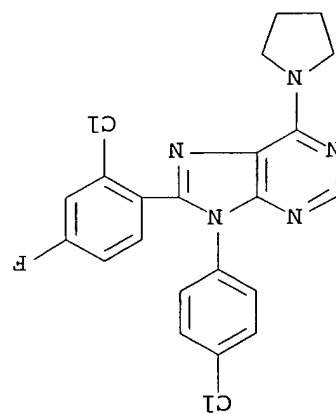


RN 686346-83-8 HCAPLUS

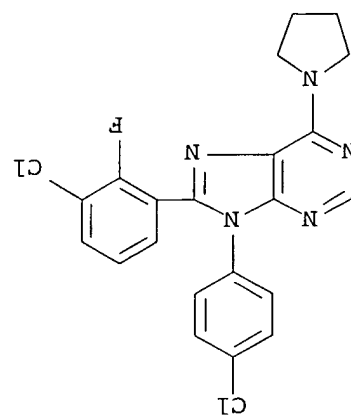
CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,4-difluorophenyl)-6-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



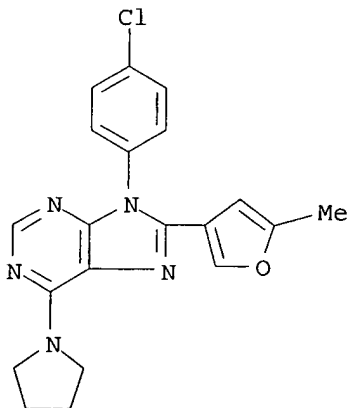
RN 686346-84-9 HCAPLUS  
 9H-Purine, 8-(2-chloro-4-fluorophenyl)-9-(4-chlorophenyl)-6-(1-pyrroldinyl)- (9CI) (CA INDEX NAME)



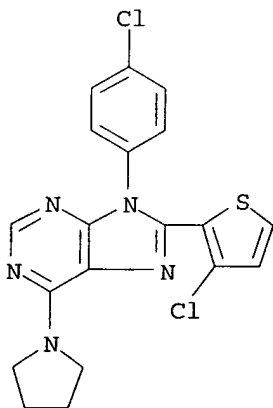
RN 686346-85-0 HCAPLUS  
 9H-Purine, 8-(3-chloro-2-fluorophenyl)-9-(4-chlorophenyl)-6-(1-pyrroldinyl)- (9CI) (CA INDEX NAME)



RN 686346-86-1 HCAPLUS

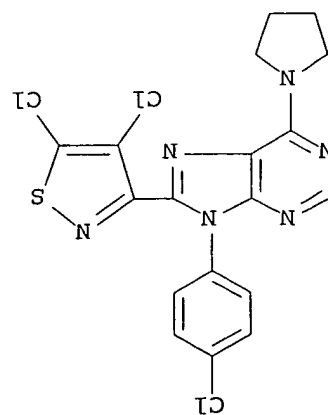
CN 9H-Purine, 9-(4-chlorophenyl)-8-(5-methyl-3-furanyl)-6-(1-pyrrolidinyl)-  
(9CI) (CA INDEX NAME)

RN 686346-87-2 HCAPLUS

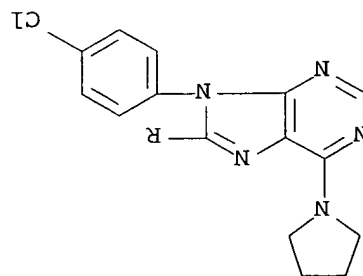
CN 9H-Purine, 9-(4-chlorophenyl)-8-(3-chloro-2-thienyl)-6-(1-pyrrolidinyl)-  
(9CI) (CA INDEX NAME)

RN 686346-88-3 HCAPLUS

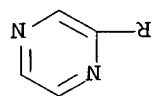
CN 9H-Purine, 9-(4-chlorophenyl)-8-(4,5-dichloro-3-isothiazolyl)-6-(1-pyrrolidinyl)-  
(9CI) (CA INDEX NAME)

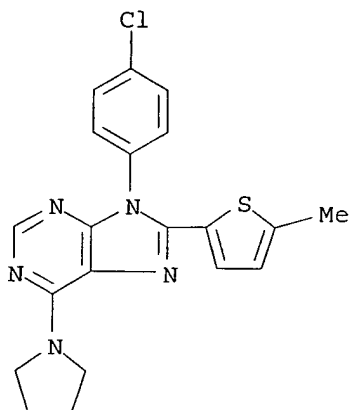


RN 686346-89-4 HCAPLUS  
CN 9H-Purine, 9-(4-chlorophenyl)-6-(1-pyrazolyl)-8-pyrazinyl-6-(1-pyrrolidinyl) - (9CI) (CA INDEX NAME)

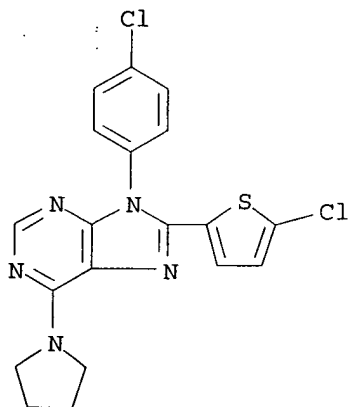


RN 686346-90-7 HCAPLUS  
CN 9H-Purine, 9-(4-chlorophenyl)-8-(5-methyl-2-thienyl)-6-(1-pyrrolidinyl) - (9CI) (CA INDEX NAME)

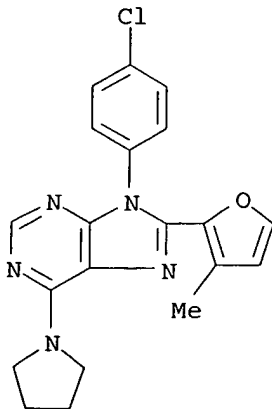




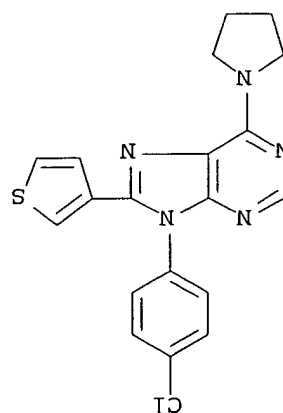
RN 686346-91-8 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-8-(5-methyl-2-thienyl)-6-(1-pyrrolidinyl)-  
(9CI) (CA INDEX NAME)

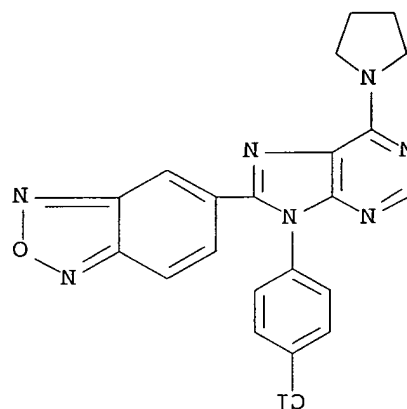
RN 686346-92-9 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-8-(3-methyl-2-furanyl)-6-(1-pyrrolidinyl)-  
(9CI) (CA INDEX NAME)

RN 686346-93-0 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-6-(1-pyrrolidinyl)-8-(3-thienyl) - (9CI) (CA INDEX NAME)

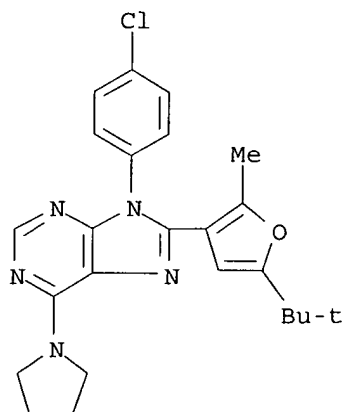


RN 686346-94-1 HCAPLUS  
 CN 9H-Purine, 8-(2,1,3-benzoxadiazol-5-yl)-9-(4-chlorophenyl)-6-(1-pyrrolidinyl) - (9CI) (CA INDEX NAME)



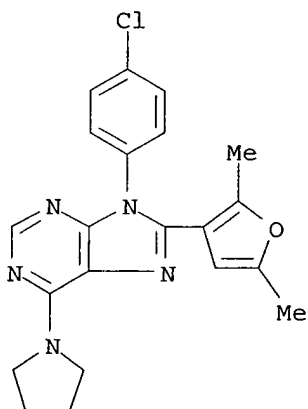
RN 686346-95-2 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-8-[5-(1,1-dimethylethyl)-2-methyl-3-furanyl]-6-(1-pyrrolidinyl) - (9CI) (CA INDEX NAME)





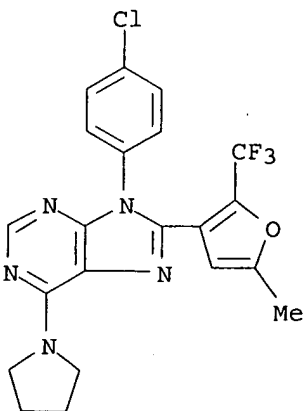
RN 686346-96-3 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,5-dimethyl-3-furanyl)-6-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)

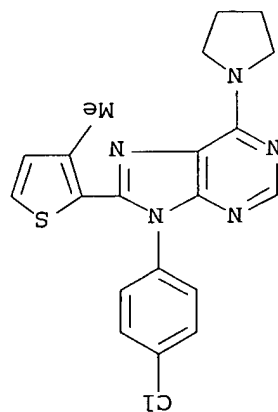


RN 686346-97-4 HCAPLUS

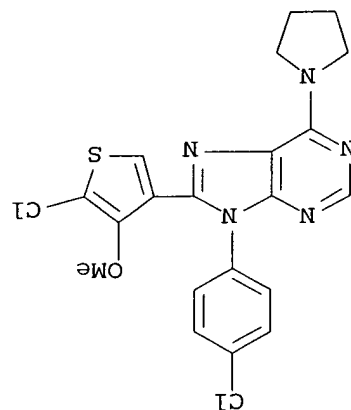
CN 9H-Purine, 9-(4-chlorophenyl)-8-[5-methyl-2-(trifluoromethyl)-3-furanyl]-6-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



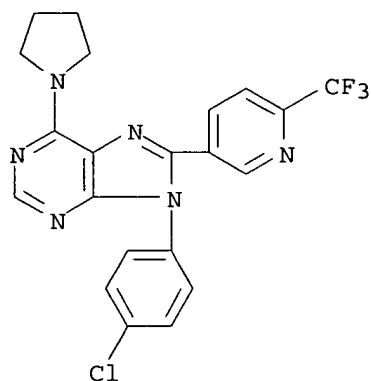
RN 686346-98-5 HCAPLUS  
 9H-Purine, 9-(4-chlorophenyl)-8-(3-methyl-2-thienyl)-6-(1-pyrrolydiny1) -  
 (9CI) (CA INDEX NAME)



RN 686346-99-6 HCAPLUS  
 9H-Purine, 8-(5-chloro-4-methoxy-3-thienyl)-9-(4-chlorophenyl)-6-(1-pyrrolydiny1) - (9CI) (CA INDEX NAME)

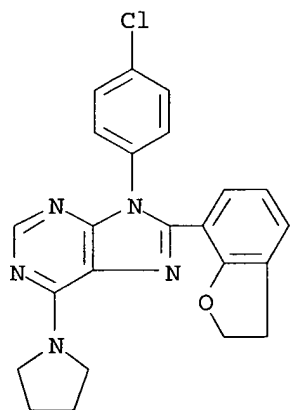


RN 686347-00-2 HCAPLUS  
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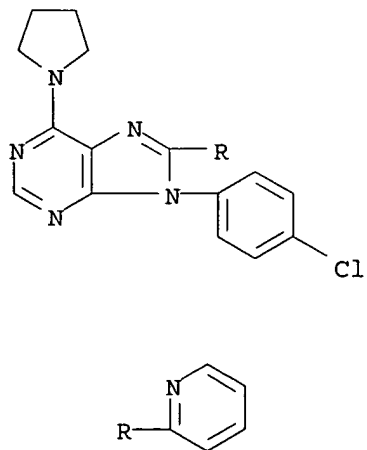
RN 686347-01-3 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-8-(2,3-dihydro-7-benzofuranyl)-6-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)

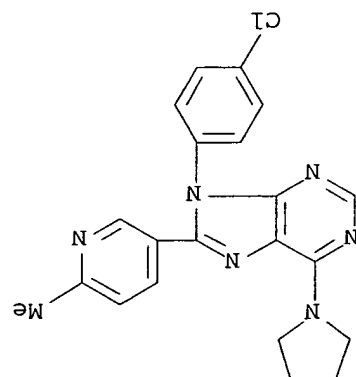


RN 686347-02-4 HCAPLUS

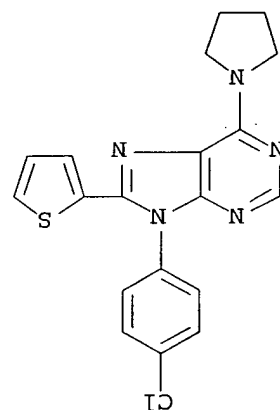
CN 9H-Purine, 9-(4-chlorophenyl)-8-(2-pyridinyl)-6-(1-pyrrolidinyl)- (9CI) (CA INDEX NAME)



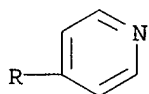
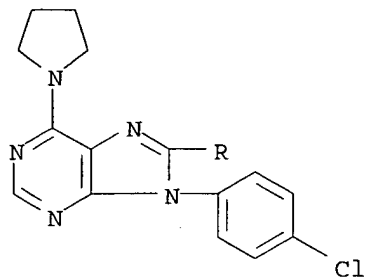
RN 686347-03-5 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-8-(6-methyl-3-pyridinyl)-6-(1-pyrrolidinyl) - (9CI) (CA INDEX NAME)



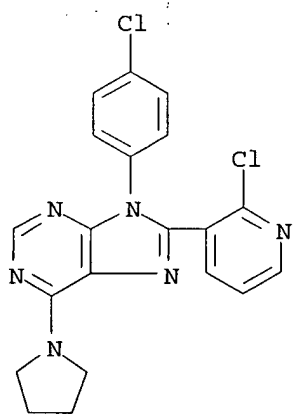
RN 686347-04-6 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-6-(1-pyrrolidinyl)-8-(2-thienyl) - (9CI) (CA INDEX NAME)



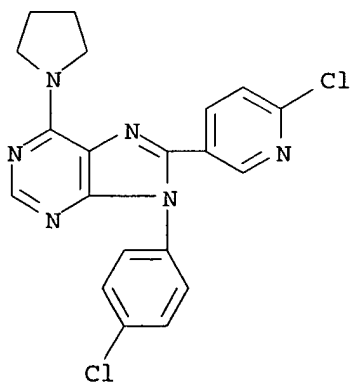
RN 686347-05-7 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-8-(4-pyridinyl)-6-(1-pyrrolidinyl) - (9CI) (CA INDEX NAME)



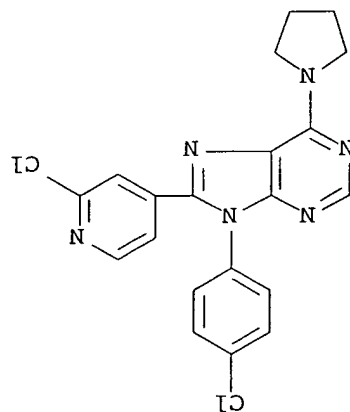
RN 686347-06-8 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-8-(2-chloro-3-pyridinyl)-6-(1-pyrrolidinyl)-  
(9CI) (CA INDEX NAME)

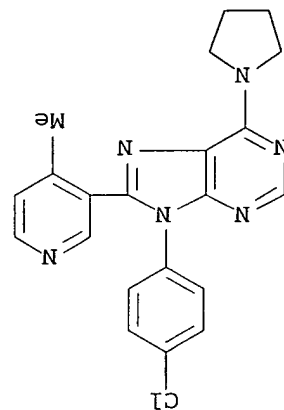
RN 686347-07-9 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-8-(6-chloro-3-pyridinyl)-6-(1-pyrrolidinyl)-  
(9CI) (CA INDEX NAME)

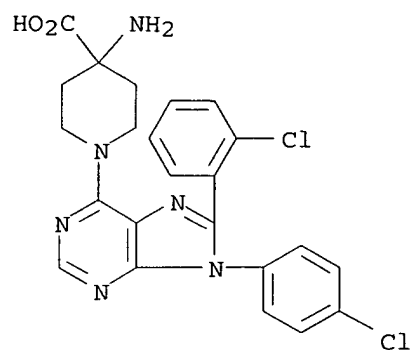
RN 686347-08-0 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-8-(2-chloro-4-pyridinyl)-6-(1-pyrroldinyl)- (9CI) (CA INDEX NAME)



RN 686347-09-1 HCAPLUS  
 CN 9H-Purine, 9-(4-chlorophenyl)-8-(4-methyl-3-pyridinyl)-6-(1-pyrroldinyl)- (9CI) (CA INDEX NAME)



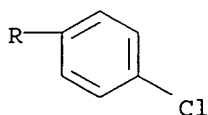
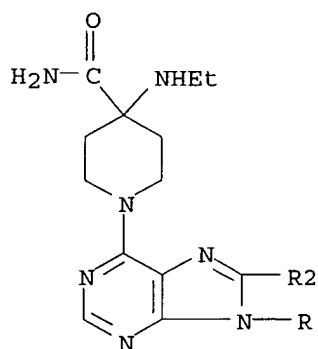
RN 686347-11-5 HCAPLUS  
 CN 4-Piperidinecarboxylic acid, 4-amino-1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-, monopotassium salt (9CI) (CA INDEX NAME)



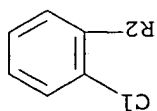
● K

RN 686347-12-6 HCAPLUS  
 CN 4-Piperidinecarboxamide, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-(ethylamino)-, monohydrochloride (9CI) (CA INDEX NAME)

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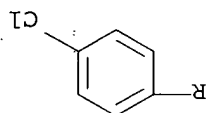
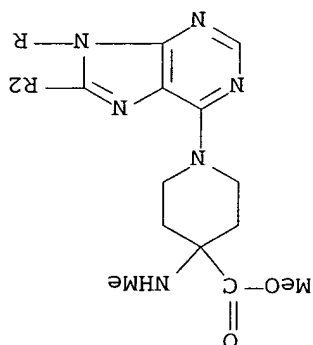
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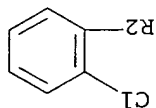
● HCl

RN 686347-13-7 HCAPLUS 4-piperidinecarboxylic acid, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-(methylamino)-, methyl ester (9CI) (CA INDEX NAME)

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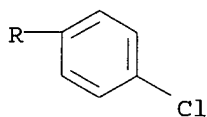
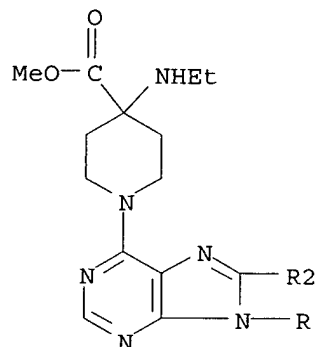
PAGE 2-A



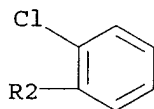
RN 686347-14-8 HCAPLUS 4-piperidinecarboxylic acid, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-(ethylamino)-, methyl ester (9CI) (CA INDEX NAME)



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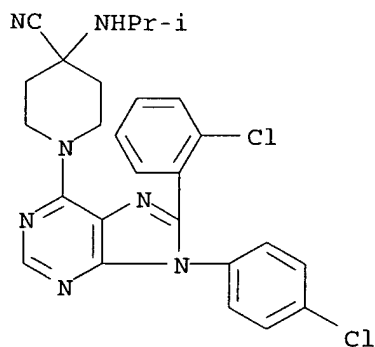


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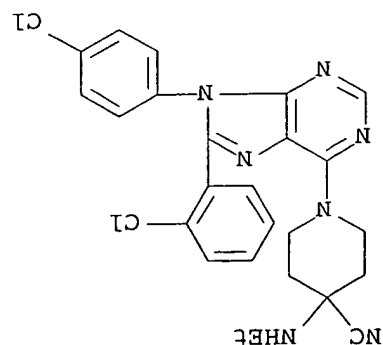
RN 686347-15-9 HCAPLUS

CN 4-Piperidinecarbonitrile, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-[(1-methylethyl)amino]- (9CI) (CA INDEX NAME)



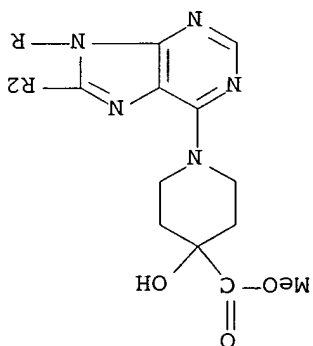
RN 686347-16-0 HCAPLUS

CN 4-Piperidinecarbonitrile, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-(ethylamino)- (9CI) (CA INDEX NAME)

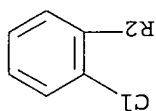


RN 686347-17-1 HCAPLUS  
 CN 4-piperidinecarboxylic acid, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-hydroxy-, methyl ester (9CI) (CA INDEX NAME)

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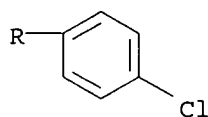
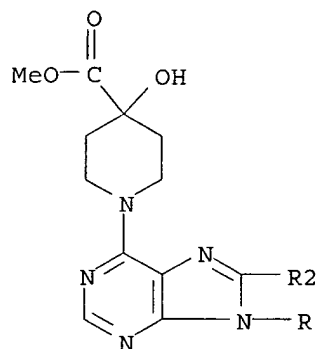


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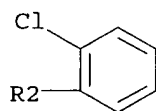


RN 686347-18-2 HCAPLUS  
 CN 4-piperidinecarboxylic acid, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-hydroxy-, methyl ester, monohydrochloride (9CI) (CA INDEX NAME)

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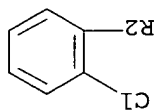
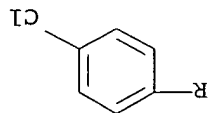
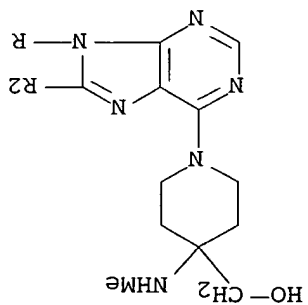
PAGE 2-A



● HCl

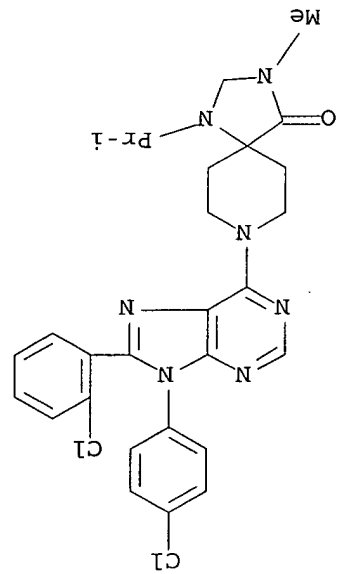
RN 686347-19-3 HCAPLUS  
CN 4-Piperidinemethanol, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-(methylamino)- (9CI) (CA INDEX NAME)

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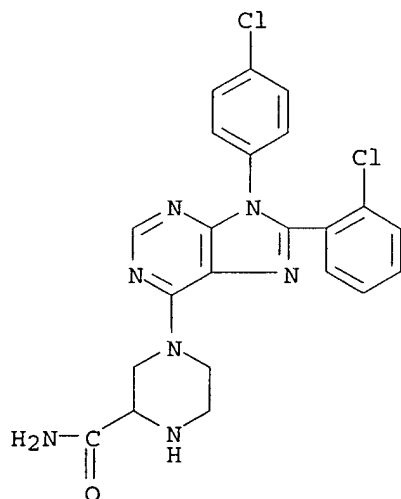
PAGE 2-A

RN 686347-20-6 HCAPLUS  
 1,3,8-Triazaspiro[4.5]decan-4-one, 8-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-1-(1-methylethyl)-3-methyl-6-yl]-9H-purin-6-yl] - (9CI)  
 NAME)  
 CN (CA INDEX



RN 686347-21-7 HCAPLUS  
 2-Piperazinecarboxamide, 4-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-9H-purin-6-yl] - (9CI)

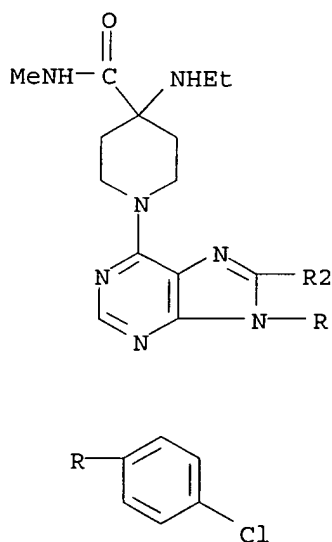
6-yl]-, monohydrochloride (9CI) (CA INDEX NAME)

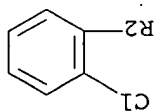


RN 686347-22-8 HCAPLUS

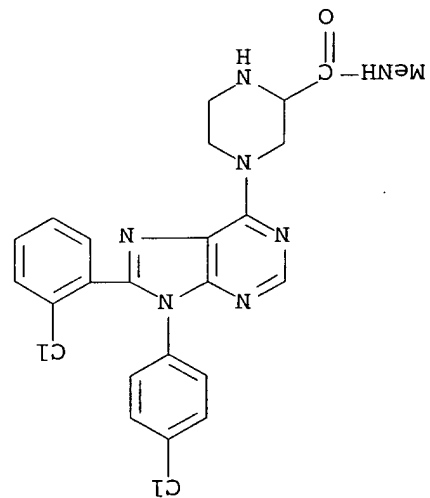
CN 4-Piperidinecarboxamide, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-(ethylamino)-N-methyl- (9CI) (CA INDEX NAME)

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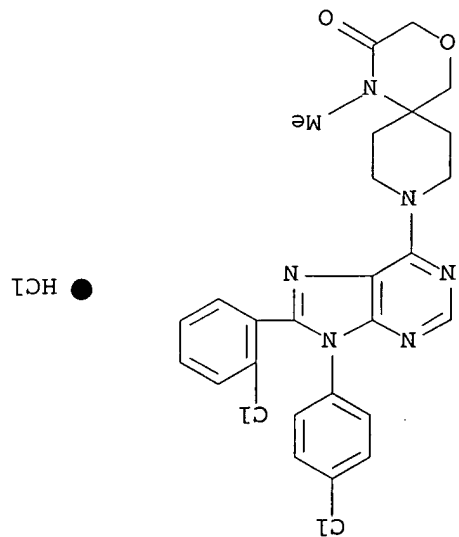




RN 686347-23-9 HCAPLUS 2-Piperazinecarboxamide, 4-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-N-methyl- (9CI) (CA INDEX NAME)

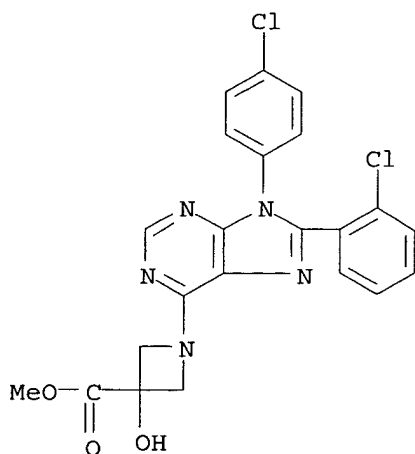


RN 686347-24-0 HCAPLUS 4-Oxa-1,9-diazaspiro[5.5]undecan-2-one, 9-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-1-methyl-, monohydrochloride (9CI) (CA INDEX NAME)



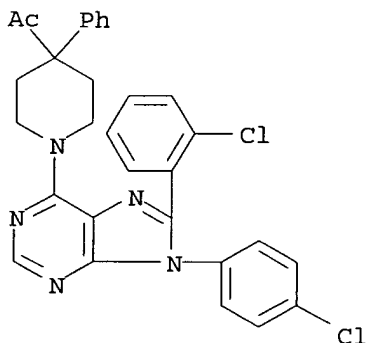
RN 686347-25-1 HCAPLUS

CN 3-Azetidinecarboxylic acid, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-3-hydroxy-, methyl ester (9CI) (CA INDEX NAME)



RN 686347-26-2 HCAPLUS

CN Ethanone, 1-[1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-phenyl-4-piperidinyl]-, monohydrochloride (9CI) (CA INDEX NAME)

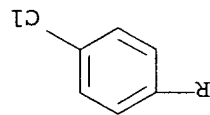
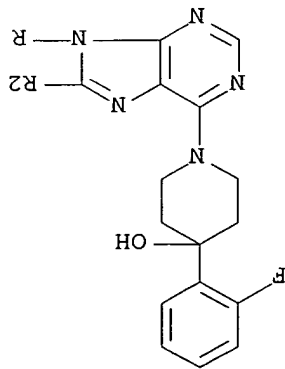


● HCl

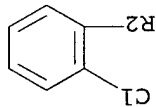
RN 686347-27-3 HCAPLUS

CN 4-Piperidinol, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-4-(2-fluorophenyl)- (9CI) (CA INDEX NAME)

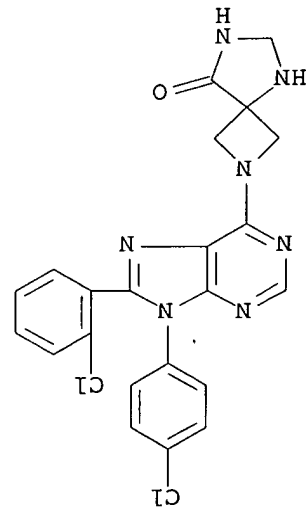
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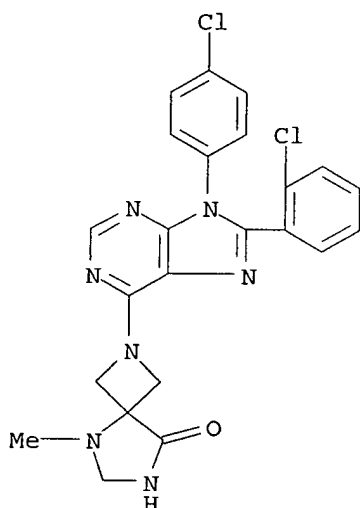
RN 686347-28-4 HCAPLUS  
CN 2,5,7-Triazaspiro[3.4]octan-8-one, 2-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl] - (9CI) (CA INDEX NAME)





RN 686347-29-5 HCAPLUS

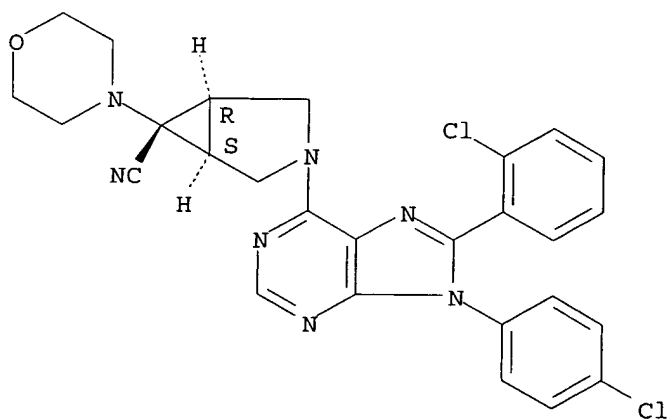
CN 2,5,7-Triazaspiro[3.4]octan-8-one, 2-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-5-methyl- (9CI) (CA INDEX NAME)



RN 686347-30-8 HCAPLUS

CN 3-Azabicyclo[3.1.0]hexane-6-carbonitrile, 3-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-6-(4-morpholinyl)-, (1 $\alpha$ ,5 $\alpha$ ,6 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

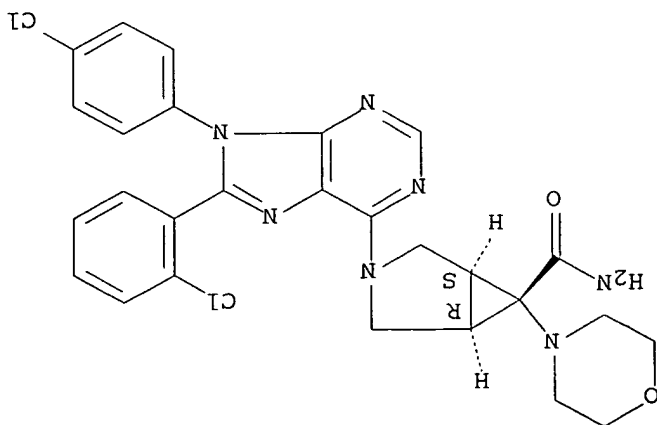


RN 686347-31-9 HCAPLUS

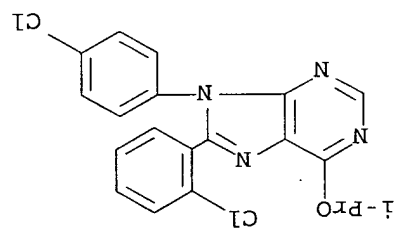
CN 3-Azabicyclo[3.1.0]hexane-6-carboxamide, 3-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-6-(4-morpholinyl)-, (1 $\alpha$ ,5 $\alpha$ ,6 $\alpha$ )- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

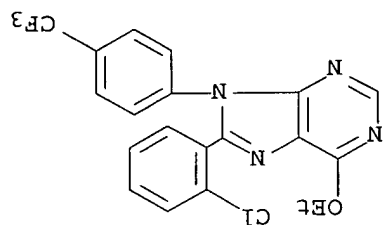
RN 686347-32-0 HCAPLUS  
 CN 9H-Purine, 8-(2-chlorophenyl)-9-(4-chlorophenyl)-6-(1-methylethoxy) - (9CI)  
 (CA INDEX NAME)

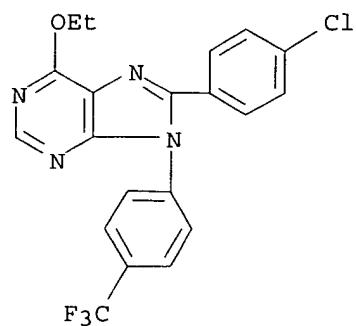


RN 686347-33-1 HCAPLUS  
 CN 9H-Purine, 8-(2-chlorophenyl)-6-ethoxy-9-[4-(trifluoromethyl)phenyl] -  
 (9CI)  
 (CA INDEX NAME)



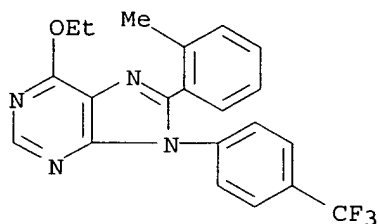
RN 686347-34-2 HCAPLUS  
 CN 9H-Purine, 8-(4-chlorophenyl)-6-ethoxy-9-[4-(trifluoromethyl)phenyl] -  
 (9CI)  
 (CA INDEX NAME)





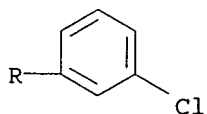
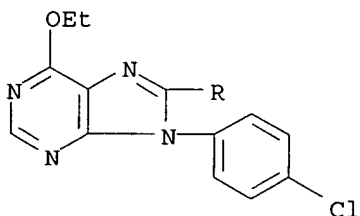
RN 686347-35-3 HCAPLUS

CN 9H-Purine, 6-ethoxy-8-(2-methylphenyl)-9-[4-(trifluoromethyl)phenyl]-  
(9CI) (CA INDEX NAME)



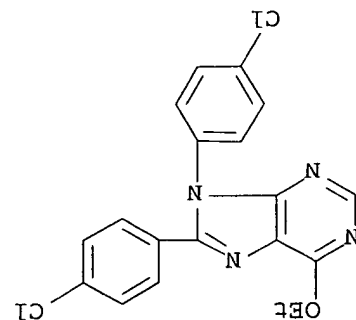
RN 686347-36-4 HCAPLUS

CN 9H-Purine, 8-(3-chlorophenyl)-9-(4-chlorophenyl)-6-ethoxy- (9CI) (CA  
INDEX NAME)



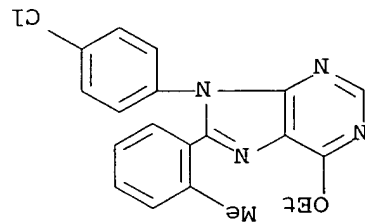
RN 686347-37-5 HCAPLUS

CN 9H-Purine, 8,9-bis(4-chlorophenyl)-6-ethoxy- (9CI) (CA INDEX NAME)



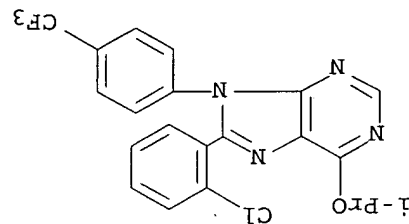
RN 686347-38-6 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-6-ethoxy-8-(2-methylphenyl)- (9CI) (CA INDEX NAME)



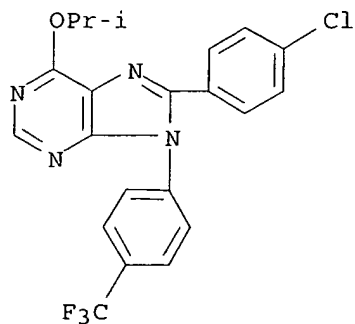
RN 686347-41-1 HCAPLUS

CN 9H-Purine, 8-(2-chlorophenyl)-6-(1-methylethoxy)-9-(4-chlorophenyl)- (9CI) (CA INDEX NAME)



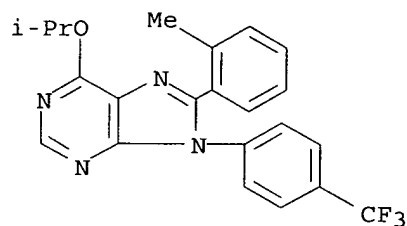
RN 686347-44-4 HCAPLUS

CN 9H-Purine, 8-(4-chlorophenyl)-6-(1-methylethoxy)-9-(4-(trifluoromethyl)phenyl)- (9CI) (CA INDEX NAME)



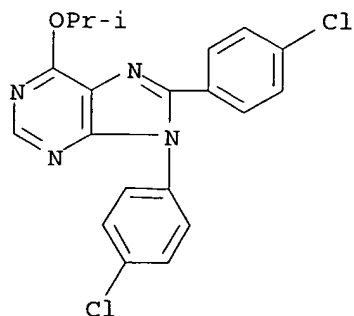
RN 686347-47-7 HCAPLUS

CN 9H-Purine, 6-(1-methylethoxy)-8-(2-methylphenyl)-9-[4-(trifluoromethyl)phenyl]- (9CI) (CA INDEX NAME)



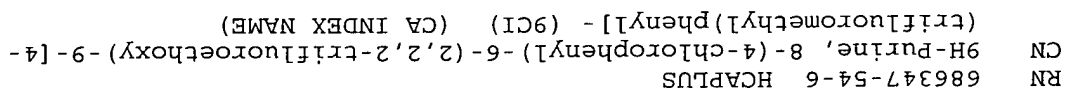
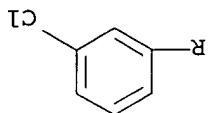
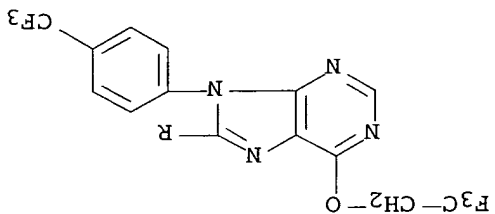
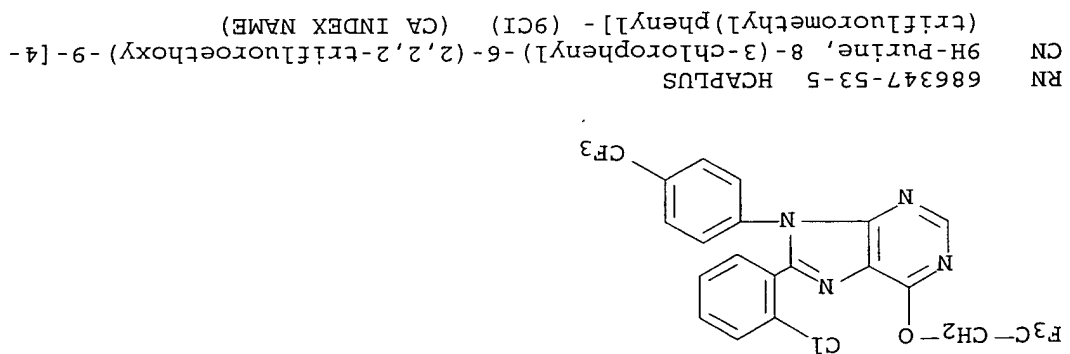
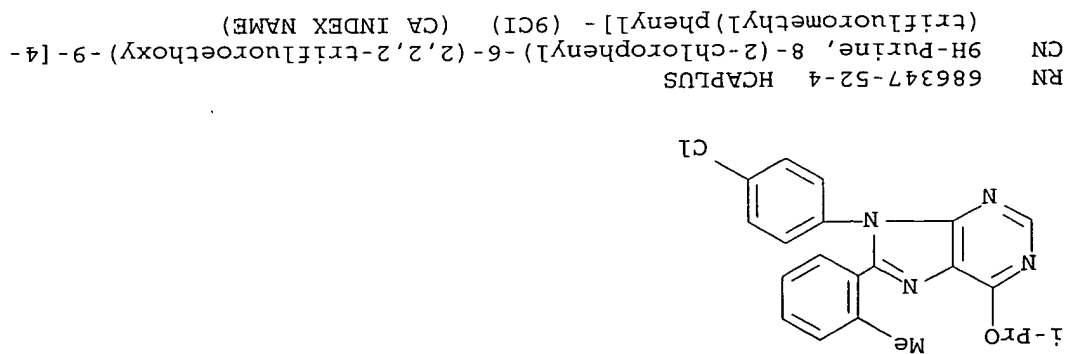
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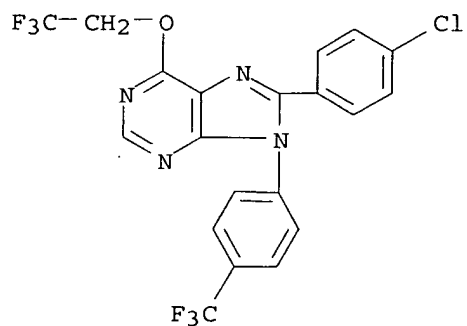
CN 9H-Purine, 8,9-bis(4-chlorophenyl)-6-(1-methylethoxy)- (9CI) (CA INDEX NAME)



RN 686347-51-3 HCAPLUS

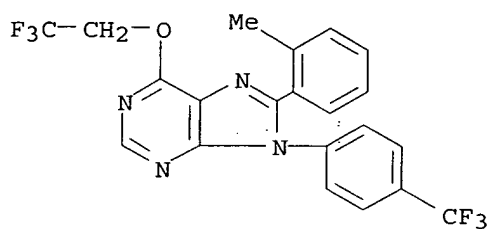
CN 9H-Purine, 9-(4-chlorophenyl)-6-(1-methylethoxy)-8-(2-methylphenyl)- (9CI) (CA INDEX NAME)





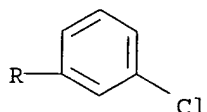
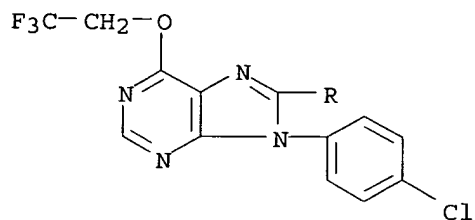
RN 686347-55-7 HCAPLUS

CN 9H-Purine, 8-(2-methylphenyl)-6-(2,2,2-trifluoroethoxy)-9-[4-(trifluoromethyl)phenyl]-(9CI) (CA INDEX NAME)



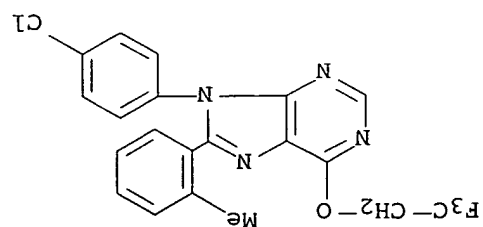
RN 686347-56-8 HCAPLUS

CN 9H-Purine, 8-(3-chlorophenyl)-9-(4-chlorophenyl)-6-(2,2,2-trifluoroethoxy)-(9CI) (CA INDEX NAME)

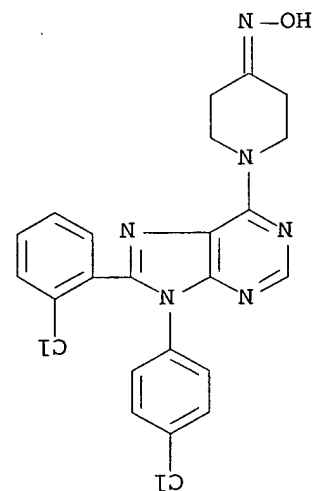


RN 686347-57-9 HCAPLUS

CN 9H-Purine, 9-(4-chlorophenyl)-8-(2-methylphenyl)-6-(2,2,2-trifluoroethoxy)-(9CI) (CA INDEX NAME)



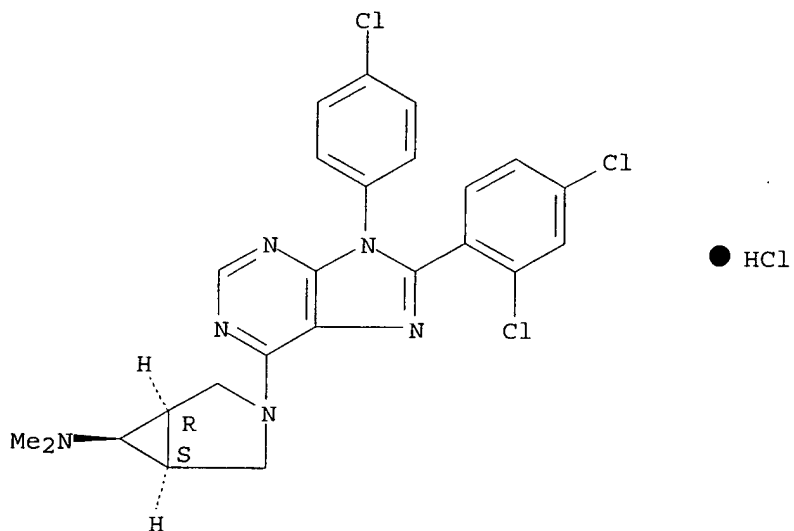
RN 686347-58-0 HCAPLUS  
 CN 4-piperidinone, 1-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-, oxime (9CI) (CA INDEX NAME)



RN 686744-55-8 HCAPLUS  
 CN 3-azabicyclo[3.1.0]hexan-6-amine, 3-[9-(4-chlorophenyl)-8-(2,4-dichlorophenyl)-9H-purin-6-yl]-N,N-dimethyl-, monohydrochloride, (1 $\alpha$ ,5 $\alpha$ ,6 $\beta$ )- (9CI) (CA INDEX NAME)

Relative stereochemistry.

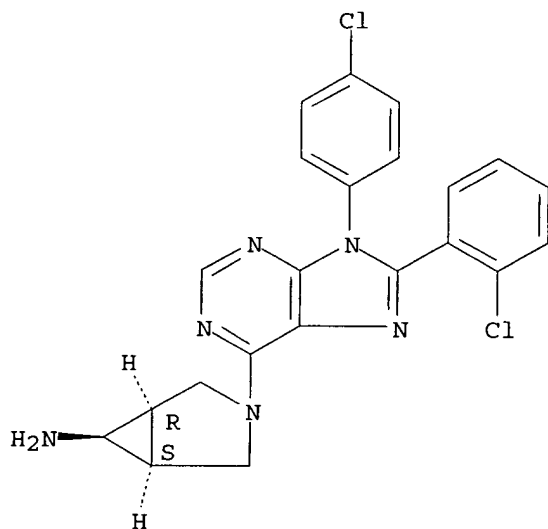




RN 686744-56-9 HCAPLUS

CN 3-Azabicyclo[3.1.0]hexan-6-amine, 3-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-, (1 $\alpha$ ,5 $\alpha$ ,6 $\beta$ )-(9CI) (CA INDEX NAME)

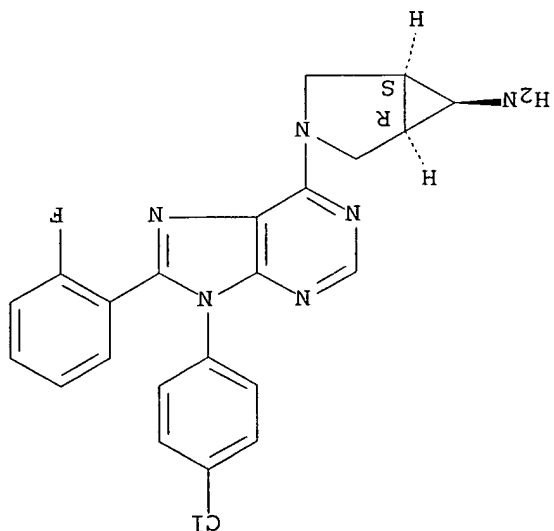
Relative stereochemistry.



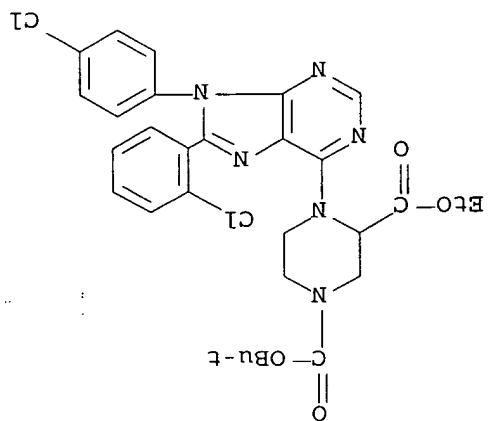
RN 686744-57-0 HCAPLUS

CN 3-Azabicyclo[3.1.0]hexan-6-amine, 3-[9-(4-chlorophenyl)-8-(2-fluorophenyl)-9H-purin-6-yl]-, (1 $\alpha$ ,5 $\alpha$ ,6 $\beta$ )-(9CI) (CA INDEX NAME)

Relative stereochemistry.



IT 686346-06-5P  
 RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)  
 (preparation of purines as cannabinoid receptor ligands (CB-1 receptor antagonists))  
 RN 686346-06-5 HCAPLUS  
 CN 1,3-Piperazinedicarboxylic acid, 4-[8-(2-chlorophenyl)-9-(4-chlorophenyl)-9H-purin-6-yl]-, 1-(1,1-dimethylethyl) 3-ethyl ester (9CI) (CA INDEX NAME)

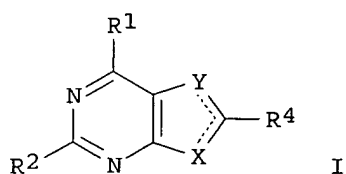


=> d 18 ibib abs qhit 1-  
 YOU HAVE REQUESTED DATA FROM 8 ANSWERS - CONTINUE? Y/(N): Y

L8 ANSWER 1 OF 8 MARPAT COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 141:174185 MARPAT  
 TITLE: Preparation of purines and pyrrolopyrimidines as selective kinase inhibitors  
 PATENT ASSIGNEE(S): Merckle GmbH, Germany

SOURCE: Eur. Pat. Appl., 64 pp.  
 CODEN: EPXXDW  
 DOCUMENT TYPE: Patent  
 LANGUAGE: German  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 1444982	A1	20040811	EP 2003-2753	20030206
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK				
PRIORITY APPLN. INFO.: GI			EP 2003-2753	20030206

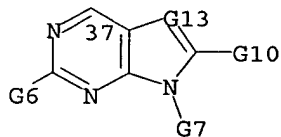


AB Title compds. [I; R1 = H, halo, alkoxy, (substituted) PhNH, PhO, PhCH2S, PhS, Ph, PhCH2, styryl, etc.; R2 = H, alkyl; X = N, NR3; Y = N, CR5, NR6; 1 dotted line = double bond, the other = single bond; R3 = H, alkyl, (substituted) Ph, PhCH2; R4 = H, halo, C.tplbond.C(CH2)mOH, (substituted) Ph; m = 1-3; R5 = H; R6 = H, (substituted) Ph, PhCH2], were prepared as selective kinase inhibitors. Thus, 6-chloro-9H-purine, PhNH2, and Et3N were refluxed 4.5 h in BuOH to give 76% N-phenyl(9H-purin-6-yl)amine. This at 30  $\mu$ M gave 34% inhibition of SAPK2a kinase.

#### MSTR 1

G1—G5  
2

G1 = OMe  
 G5 = 37



G7 = Ph (opt. substd. by 1 or more G4)  
 G10 = Ph (opt. substd. by (1-2) G11)  
 G13 = N  
 Patent location: claim 1

L8 ANSWER 2 OF 8 MARPAT COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 140:423675 MARPAT

TITLE: A preparation of hetero-substituted benzimidazole derivatives useful as antiviral agents

INVENTOR(S): Lackey, John William

PATENT ASSIGNEE(S): Trimeris, Inc., USA

SOURCE: PCT Int. Appl., 82 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

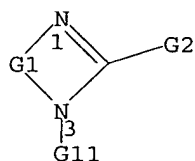
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004043913	A2	20040527	WO 2003-US35542	20031106
WO 2004043913	A3	20040923		
W:				
AE, AG, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, GR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MY, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, UA, UG, UZ, VN, YU, ZA, ZM, ZW	RW:			
BW, BM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG				
US 2004166137	A1	20040826	US 2003-704224	20031106
PRIORITY APPLN. INFO.:				
US 2002-424940P			US 2002-424940P	20021108

GI

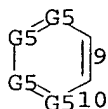
\* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT \*

AB The invention relates to novel hetero-substituted benzimidazole derivs. of formula I [wherein: Z1, Z2, Z3, Z4 are each independently N or C, and at least one of Z1, Z2, Z3, Z4 is C; R1 and R2 are each independently H, (hetero)aryl, etc.; R3 is H, halide, OH, (un)substituted aryl, arylalkyl, etc.; R4, R5, R6, R7 are each independently H, halide, alkyl, OH, alkoxy, etc.; X is a bond, (un)substituted alkyl, -alkyl-N-, -alkyl-O-, -C-N-, C(O), etc.; Y is N, P, O, S; if Y is O or S, R2 is not present], useful as antiviral agents. The invention encompasses hetero-substituted benzimidazole compds. that inhibit membrane fusion associated events such as viral transmission, reduce viral load or otherwise treat viral infections. The invention also encompasses the use of hetero-substituted benzimidazole compds. as inhibitors of membrane fusion associated events, such as viral transmission. The invention provides methods for treating, preventing or ameliorating symptoms associated with respiratory infection, particularly that caused by Respiratory Syncytial Virus utilizing the novel benzimidazole compds. of the invention. For instance, imidazopyridine derivative II [PRA(IC50) = 0.001 µg/mL; XTT(CC50) = 100 µg/mL] was prepared via heterocyclization of the prepared benzimidazole derivative III with ClCH2C(:NH)OEt and subsequent amination of the obtained imidazopyridine IV by morpholine.

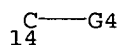
MSTR 1



G1 = 9-1 10-3



G2 = Ph  
G4 = OMe  
G5 = (up to 3) N / 14



G11 = Ph (opt. substd. by 1 or more G20)

Patent location: claim 1

Note: or pharmaceutically acceptable salts, prodrugs, solvates, hydrates, and clathrates

Note: substitution is restricted

Stereochemistry: and enantiomers, diastereomers, racemates, and mixtures

L8 ANSWER 3 OF 8 MARPAT COPYRIGHT 2005 ACS on STN.

ACCESSION NUMBER: 140:327061 MARPAT

TITLE: Nucleoside derivatives for treating hepatitis C virus infection

INVENTOR(S): Roberts, Christopher Don; Dyatkina, Natalia B.

PATENT ASSIGNEE(S): Genelabs Technologies, Inc., USA

SOURCE: PCT Int. Appl., 119 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

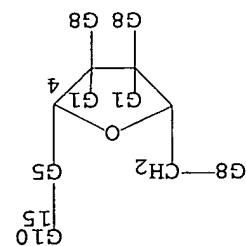
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2004028481	A2	20040408	WO 2003-US31433	20030930
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				

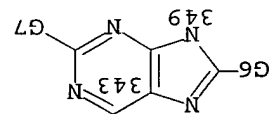
CA 249253 AA 20040408 CA 2003-249253 20030930  
 PRIORITY APPLN. INFO.: US 2002-415222P 20020930  
 US 2003-443169P 20030129  
 WO 2003-US31433 20030930

AB Nucleoside comps. and methods for treating hepatitis C virus infections.  
 Thus, 9-(2'-C-methyl-β-D-ribofuranosyl)-6-methoxyaminopurine was  
 prepared by the reaction of 6-chloro-9-(2'-C-methyl-β-D-  
 ribofuranosyl)purine and methylamine. This compound exhibited  
 anti-hepatitis C activity by inhibiting HCV polymerase.

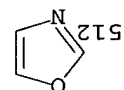
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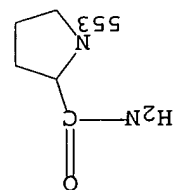
G5 = 349-4 343-15



G6 = 512



G10 = 553



Patent location:

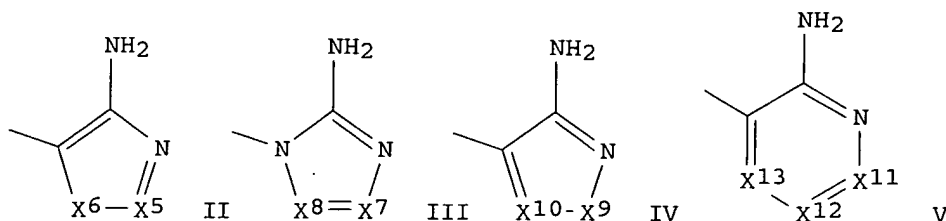
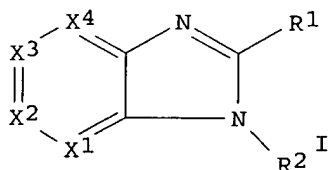
claim 1  
 and pharmaceutically acceptable prodrugs and salts  
 substitution is restricted  
 Note:  
 Note:  
 Note:

L8 ANSWER 4 OF 8 MARPAT COPYRIGHT 2005 ACS on STN  
 ACCESSION NUMBER: 139:292251 MARPAT

TITLE: Preparation of imidazopyridines as kinase inhibitors  
 INVENTOR(S): Bailey, Nicholas; Bamford, Mark James; Garland, Stephen; Goodman, Krista B.; Haifeng, Cui; Hilfiker, Mark A.; Lee, Dennis; Panchal, Terence Aaron; Stavenger, Robert A.; Wilson, David Matthew; Witherington, Jason  
 PATENT ASSIGNEE(S): Glaxo Group Limited, UK  
 SOURCE: PCT Int. Appl., 187 pp.  
 CODEN: PIXXD2  
 DOCUMENT TYPE: Patent  
 LANGUAGE: English  
 FAMILY ACC. NUM. COUNT: 1  
 PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003080610	A1	20031002	WO 2003-GB1205	20030321
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW				
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG				
EP 1490367	A1	20041229	EP 2003-744904	20030321
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, SK				
JP 2005526802	T2	20050908	JP 2003-578364	20030321
US 2005197328	A1	20050908	US 2004-508760	20040922
PRIORITY APPLN. INFO.:			GB 2002-6860	20020322
			WO 2003-GB1205	20030321

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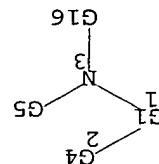


AB This patent concerns imidazopyridines (shown as I; variables defined

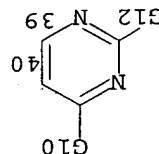
below; e.g. 4-(1-ethyl-1H-imidazo[4,5-c]pyridin-2-yl)furazan-3-ylamine) and physiol. acceptable salts and or N-oxides thereof, processes for their preparation, pharmaceutical comps. containing them and their use in medicine.

I, X1 is N or CR3; X2 is N or CR4; X3 is N or CR5; X4 is N or CR6 with the proviso that at least one but not more than two of X1, X2, X3 and X4 = N; R1 is a 5-, or 6-membered heterocyclic group II, III, IV or V wherein X5 is a N or CR7; and X6 is a O, S or NR8; X7 and X8, which may be the same or different is a N or CR9; X9 is a O, S or NR8 and X10 is N or CR10; X11, X12 and X13 may be the same or different and = N or R11; addnl. details are given in the claims. For Rho-kinase (ROCK) activity the comps. I of the examples have a pIC50 of 9 to 5.2; for mitogen and stress activated protein kinase-1 (Msk-1) activity the comps. I of the examples have a pIC50 value of 9.28-5.15. The comps. I are essentially non-toxic at therapeutically useful doses; thus no adverse effects were observed when comps. of the invention were administered to rats at a dose of 100 mg/kg. Although no specific therapeutic applications are claimed, because of the inhibition by I of Msk-1, I should be useful for the treatment or prophylaxis of disorders associated with neuronal degeneration resulting from ischemic events or inflammatory conditions, e.g. cerebral stroke; also, because of the inhibition by I of Rho kinases, I should be useful for the treatment or prophylaxis of cardiovascular and neuroinflammatory diseases. More than 300 example preps. and/or characterization data for I are included. For example, [4-(1-ethyl-1H-imidazo[4,5-c]pyridin-2-yl)furan-3-yl]amine was prepared in 4 steps (88, 94, 37 and 43 % yields, resp.) starting from 4-methoxy-3-nitropyrroline hydrochloride and ethylamine and involving intermediates ethyl(3-nitropyrroline-4-yl)amine, N'-ethylpyrroline-3,4-diamine and (1-ethyl-1H-imidazo[4,5-c]pyridin-2-yl)acetoneitrile.

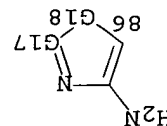
## MSTR 1



G1 = 40-2 39-3

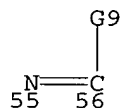


G9 = 86





G10 = pyrrolidino  
 G16 = Ph (opt. substd.)  
 G17 = N  
 G18 = O  
 G4 +G5 = 55-1 56-3



Patent location: claim 1  
 Note: and physiologically acceptable salts and/or  
 N-oxides  
 Note: also incorporates claim 19  
 Note: substitution is restricted

REFERENCE COUNT: 5 THERE ARE 5 CITED REFERENCES AVAILABLE FOR THIS  
 RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 5 OF 8 MARPAT COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 131:116251 MARPAT

TITLE: Preparation of purine derivatives as adenosine A2  
 receptor antagonists for the treatment of diabetes  
 INVENTOR(S): Asano, Osamu; Harada, Hitoshi; Hoshino, Yori-hisa;  
 Yoshikawa, Seiji; Inoue, Takashi; Horizoe, Tatsuo;  
 Yasuda, Nobuyuki; Nagata, Kaya; Nagaoka, Junsaku;  
 Murakami, Manabu; Kobayashi, Seiichi

PATENT ASSIGNEE(S): Eisai Co., Ltd., Japan

SOURCE: PCT Int. Appl., 167 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent

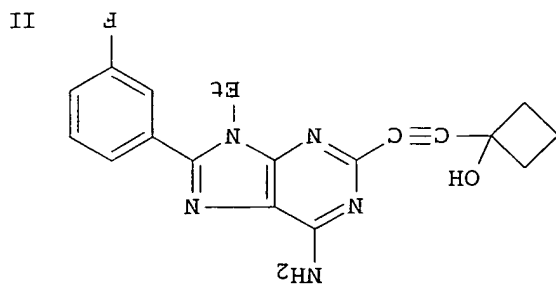
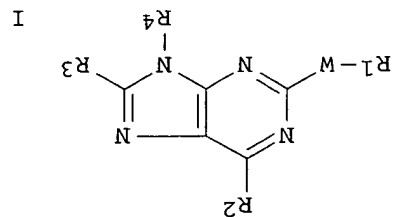
LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

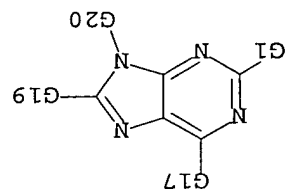
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9935147	A1	19990715	WO 1998-JP5870	19981224
W: AU, BR, CA, CN, HU, KR, MX, NO, NZ, RU, US				
RW: AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE				
JP 11263789	A2	19990928	JP 1998-363938	19981222
CA 2315736	AA	19990715	CA 1998-2315736	19981224
AU 9916885	A1	19990726	AU 1999-16885	19981224
EP 1054012	A1	20001122	EP 1998-961528	19981224
EP 1054012	B1	20030611		
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EP 1300147	A1	20030409	EP 2002-29118	19981224
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, FI, CY				
AT 242775	E	20030615	AT 1998-961528	19981224
US 6579868	B1	20030617	US 2000-582840	20000705
PRIORITY APPLN. INFO.:				
			JP 1998-526	19980105
			EP 1998-961528	19981224
			WO 1998-JP5870	19981224

GI

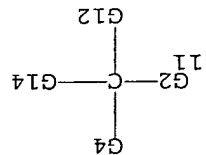


AB The title compds. I [R1 = (un)substituted aromatic ring (which may contain heteroatom), etc.; W = CH<sub>2</sub>CH<sub>2</sub>, etc.; R2 = H, (un)substituted alkyl, etc.; R3 = H, (un)substituted cycloalkyl, etc.; R4 = H, (un)substituted alkyl, heteroaryl, etc.; a proviso is given] are prepared in an in vitro test for Aza receptor antagonism, the title compound II showed the K<sub>i</sub> value of 0.002 μM.

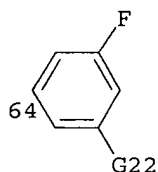
# MSTR 1



G1 = 11



G2 = CH<sub>2</sub>CH<sub>2</sub>  
G17 = OEt  
G19 = 64



G21 = phenylene

Derivative: and pharmaceutically acceptable salts or hydrates  
 Patent location: claim 1  
 Note: substitution is restricted

REFERENCE COUNT: 28 THERE ARE 28 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L8 ANSWER 6 OF 8 MARPAT COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 126:212372 MARPAT

TITLE: Preparation of oxetanyl purines and pyrimidines nucleoside analogs as virucides

INVENTOR(S): Norbeck, Daniel W.; Plattner, Jacob J.; Rosen, Terry J.

PATENT ASSIGNEE(S): Abbott Laboratories, USA

SOURCE: U.S., 31 pp., Cont.-in-part of U.S. Ser. No. 615,138, abandoned.

CODEN: USXXAM

DOCUMENT TYPE: Patent

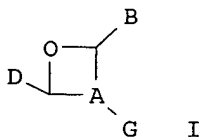
LANGUAGE: English

FAMILY ACC. NUM. COUNT: 2

PATENT INFORMATION:

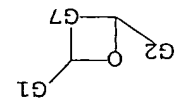
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 5597824	A	19970128	US 1992-904407	19920625
US 5420276	A	19950530	US 1993-163217	19931207
PRIORITY APPLN. INFO.:			US 1987-116605	19871103
			US 1989-453520	19891220
			US 1990-574617	19900824
			US 1990-615138	19901123
			US 1992-904407	19920625

GI

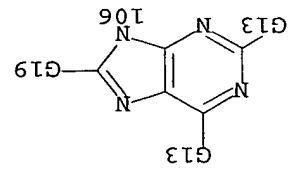


AB Title nucleosides I, wherein B is a purin-9-yl group or a heterocyclic isostere of a purin-9-yl group; or a pyrimidin-1-yl group or a heterocyclic isostere of a pyrimidin-1-yl group; A is -CH- or A-G taken together is -C(O)-, -C(CH<sub>2</sub>)-, -C(OH)(CH<sub>2</sub>OH)-, or epoxy, and G and D are functional groups, were prepared as virucides. Thus, 1-([2'R,3'R,4'S]-3',4'-bis(hydroxymethyl)-2'-oxetanyl)cytosine was prepared and tested for its antiviral activity against Varicella-zoster virus (MIC<sub>50</sub> = 0,07 µg/mL).

MSTR 2



G1 = 106



G7 = CH2  
G13 = aziridino  
G19 = aziridino  
Derivative:  
Patent location:

or pharmaceutically acceptable salts or esters  
disclosure

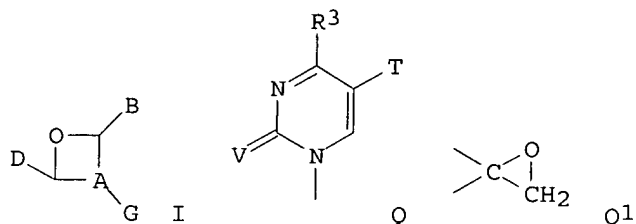
I8 ANSWER 7 OF 8 MARPAT COPYRIGHT 2005 ACS on STN  
115:183808 MARPAT

TITLE: Preparation of oxetanyl purines and pyrimidines as  
antiviral agents  
INVENTOR(S) : Norbeck, Daniel W.; Rosen, Terry J.; Plattner, Jacob  
J.

PATENT ASSIGNEE(S) : Abbott Laboratories, USA  
Eur. Pat. Appl., 47 pp.  
CODEN: EPXXDW

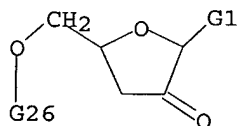
DOCUMENT TYPE: Patent  
LANGUAGE: English  
FAMILY ACC. NUM. COUNT: 2  
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
EP 433898	A2	19910626	EP 1990-124125	19901213
EP 433898	A3	19920122		
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE				
CA 2032422	AA	19910621	CA 1990-2032422	19901217
JP 06192255	A2	19940712	JP 1990-419279	19901220
PRIORITY APPLN. INFO.:				
US 1989-453520			US 1989-453520	19891220
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US 1990-615138			US 1990-615138	19901123

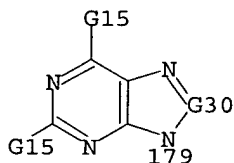


AB Title compds. I [B = pyrimidin-1-yl or isostere, Q; D = H, C1-10 alkyl, CH<sub>2</sub>OH, CH<sub>2</sub>OR<sub>1</sub>, CH<sub>2</sub>OCO<sub>2</sub>, etc.; R<sub>1</sub> = C1-6 alkyl; R<sub>2</sub> = C1-10 alkyl; A = CH; G = H, C1-10 alkyl, OH, alkoxy, NH<sub>2</sub>, alkylamino, SH, N<sub>3</sub>, CH<sub>2</sub>OH, etc., or AG = CO, C:CH<sub>2</sub>, C(OH)(CH<sub>2</sub>OH), Q<sub>1</sub>; D and G both ≠ H or C1-10 alkyl; V = O, S; R<sub>3</sub> = OH, SH, alkoxy, thioalkoxy, halo etc.; T = H, C1-10 alkyl, etc.], were prepared. Thus, 5'-O-(tert-butyldimethylsilyl)-3'-diazo-2',3'-dideoxy-2'-oxocytidine (preparation from 4-N-acetylcytidine given) in MeOH was photolyzed with a 450 W Hanovia lamp to give the corresponding 4'-silyloxy-3'-methoxycarbonyl-2'-oxetanylcytosine derivative which was reduced by NaBH<sub>4</sub> to the 3'-hydroxymethyl analog. This was deprotected by BuNH<sub>3</sub>BF<sub>4</sub> to give 1-([2'R,3'R,4'S]-3',4'-bis(hydroxymethyl-2'-oxetanyl)cytosine (II). II had ID<sub>50</sub>) of 0.8 and 1.0 µg/mL against HSV-1 and HSV-2, resp.

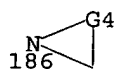
#### MSTR 2A



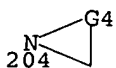
G1 = 179



G4 = (1-5) CH<sub>2</sub>  
G15 = 186

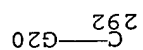


G20 = 204

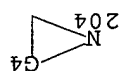


MSTR 4A

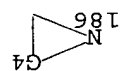
Patent location: claim 9



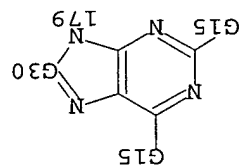
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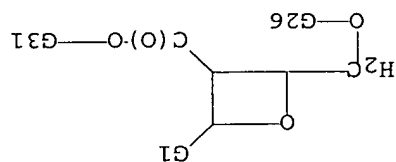
G20 = 204



G4 = (1-5) CH2  
G15 = 186

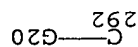


G1 = 179

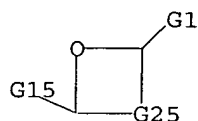


MSTR 3A

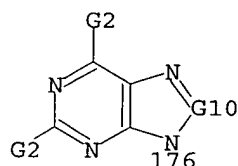
Patent location: claim 9



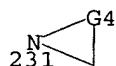
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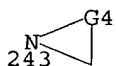
G1 = 176



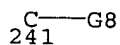
G2 = 231



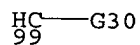
G4 = (1-5) CH2  
G8 = 243



G10 = 241



G25 = 99



Derivative: or pharmaceutically acceptable salts or esters  
Patent location: disclosure

L8 ANSWER 8 OF 8 MARPAT COPYRIGHT 2005 ACS on STN  
ACCESSION NUMBER: 110:144874 MARPAT  
TITLE: Silver halide photographic material having silver iodide- and an aza-indene-containing underlayer to reduce cross-over effect  
INVENTOR(S): Kawasaki, Mikio; Honda, Bon  
PATENT ASSIGNEE(S): Konica Co., Japan  
SOURCE: Jpn. Kokai Tokkyo Koho, 17 pp.  
CODEN: JKXXAF  
DOCUMENT TYPE: Patent  
LANGUAGE: Japanese  
FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

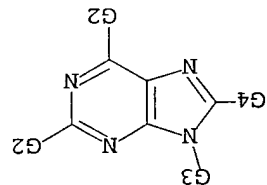
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
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JP 63199347	A2	19880817	JP 1987-31976	19870214
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JP 63199347	A2	19880817	JP 1987-31976	19870214

PRIORITY APPLN. INFO.:

AB The claimed photog. material having light-sensitive Ag halide emulsion layers on both sides of the support is provided, between the support and  $\geq 1$  of the emulsion layer, with a light-insensitive Ag halide emulsion layer containing AgI-containing mixed crystal grains and an aza-indene compound. It reduces cross-over light through the support and increases image sharpness, therefore, it is suitably used for medical radiog. diagnosis. Suitable aza-indenes are properly substituted tetraza-indenes, penta- and triaza-indenes. Thus, (1) a substantially light-insensitive Ag(Br,I) emulsion layer (AgI 3 mol%, average size 0.18  $\mu$ m) containing 1 g/mol Ag of 7-hydroxy-5-methyl-1,3,4,7'-tetraza-indene, (2) a light-sensitive Ag(Br,I) emulsion layer (AgI 2 mol%, average grain size 1.05  $\mu$ m) and (3) a protective layer consisting of poly(Me methacrylate) particles, and gelatin were coated on a film support in this order. The same layer configuration was provided on the other side of the support to make a medical x-ray film.

MSTR 5



G2 = OBU-I  
G3 = Ph  
G4 = Ph

disclosure